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THE MAINE BULLETIN

MAR 21 1922

VOL. XXIV

JANUARY, 1922

No. 5

15<sup>A</sup>

**CATALOG**  
**OF THE**  
**UNIVERSITY OF MAINE**



**1921 - 1922**

Published monthly during the academic year by the University  
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- 1 Athletic Field
- 2 Grand Stand
- 3 Beta Theta Pi House
- 4 Tennis Courts
- 5 Pumping Station
- 6 Plumber's House
- 7 Oak Hall
- 8 Wingate Hall
- 9 Fernald Hall
- 10 Power House
- 11 Alumni Hall
- 12 University Press
- 13 Coburn Hall
- 14 President's House
- 15 Observatory
- 16 Horticultural Building
- 17 Holmes Hall
- 18 Home Economics Laboratory
- 19 Stable
- 20 Dairy
- 21 Barns
- 22 Farm Superintendent's House
- 23 Professor's House
- 24 Kappa Sigma House
- 25 Mt. Vernon House
- 26 Phi Gamma Delta House
- 27 B. O. & O. Waiting Room
- 28 Lord Hall
- 29 North Hall
- 30 Phi Kappa Sigma House
- 31 Sigma Alpha Epelon House
- 32 Store House
- 33 Infirmary
- 34 Library
- 35 Farm Buildings
- 36 Heating Plant
- 37 Winslow Hall
- 38 Theta Chi House
- 39 Phi Eta Kappa House
- 40 Stock Judging Pavilion
- 41 Delta Tau Delta House
- 42 Hannibal Hamlin Hall
- 43 Professors' Houses
- 44 Estabrooke Hall
- 45 Valentine Hall
- 46 Baseball Grand Stand
- 47 Aubert Hall
- 48 Sigma Nu House
- 49 Carpenter Shop
- 50 Mt. Vernon Annex

CATALOG OF THE  
UNIVERSITY OF MAINE

1921-22



ORONO, MAINE

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THE UNIVERSITY PRESS  
ORONO, MAINE  
1921

1921	1922	1922	1923
JULY	JANUARY	JULY	JANUARY
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# Calendar

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## FALL SEMESTER, 1921

September 9-13, Arrearage and entrance examinations.  
September 13, Tuesday, Registration 8 A. M. to 5 P. M.  
September 14, Wednesday, Registration 8 A. M. to 5 P. M. First  
Chapel, 11 A. M.  
September 15, Thursday, Classes begin 8 A. M.  
November 24, Thursday, Thanksgiving Day, a holiday.  
December 16, Friday, Christmas Recess begins 5.05 P. M.

## 1922

January 2, Monday, Christmas Recess ends 8 A. M.  
January 27, Friday, Fall Semester ends 5.05 P. M.

## SPRING SEMESTER

January 28, Saturday, Registration 8 A. M. to 5 P. M.  
January 30, Monday, Spring Semester begins 8 A. M.  
February 22, Wednesday, Washington's Birthday, a holiday.  
March 24, Friday, Spring Recess begins 5.05 P. M.  
April 3, Monday, Spring Recess ends 8 A. M.  
April 19, Wednesday, Patriot's Day, a holiday.  
May 30, Tuesday, Memorial Day, a holiday.

In 1922 the Commencement exercises will occur one week earlier than the dates printed here.

## FALL SEMESTER

September 19, Tuesday, Registration 8 A. M. to 5 P. M.  
September 20, Wednesday, Registration 8 A. M. to 5 P. M. First  
Chapel, 11 A. M.

1921	1922	1922	1923
JULY	JANUARY	JULY	JANUARY
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AUGUST	FEBRUARY	AUGUST	FEBRUARY
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NOVEMBER	MAY	NOVEMBER	MAY
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# Calendar

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## FALL SEMESTER, 1921

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September 14, Wednesday, Registration 8 A. M. to 5 P. M. First  
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November 24, Thursday, Thanksgiving Day, a holiday.  
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## 1922

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January 27, Friday, Fall Semester ends 5.05 P. M.

## SPRING SEMESTER

January 28, Saturday, Registration 8 A. M. to 5 P. M.  
January 30, Monday, Spring Semester begins 8 A. M.  
February 22, Wednesday, Washington's Birthday, a holiday.  
March 24, Friday, Spring Recess begins 5.05 P. M.  
April 3, Monday, Spring Recess ends 8 A. M.  
April 19, Wednesday, Patriot's Day, a holiday.  
May 30, Tuesday, Memorial Day, a holiday.  
June 6-9, Entrance Examinations.  
June 10, Saturday, Alumni Day, Class Day.  
June 11, Sunday, Baccalaureate Address.  
June 12, Monday, Commencement, 9.30 A. M.

## FALL SEMESTER

September 19, Tuesday, Registration 8 A. M. to 5 P. M.  
September 20, Wednesday, Registration 8 A. M. to 5 P. M. First  
Chapel, 11 A. M.

## Board of Trustees

---

COL. FREDERIC HASTINGS STRICKLAND, President	Bangor
Term expires April 28, 1922	
THOMAS EDWARD HOUGHTON, Clerk	Fort Fairfiled
Term expires April 28, 1927	
HON. FRANK EDWARD GUERNSEY	Dover
Term expires May 31, 1924	
ORA GILPATRICK	Houlton
Term expires June 19, 1925	
CHARLES SWAN BICKFORD, B. S.	Belfast
Term expires October 1, 1926	
HOSEA BALLOU BUCK, C. E.	Bangor
Term expires June 17, 1924	
REX WILDER DODGE, B. S.	Portland
Term expires September 30, 1921	
EDWARD BAILEY DRAPER, B. A., LL. B.	Bangor
Term expires April 22, 1928	
EXECUTIVE COMMITTEE: Strickland, Buck, Draper	
FARM COMMITTEE: Guernsey, Gilpatrick, Houghton	

## Officers of Administration

### OF THE UNIVERSITY

\_\_\_\_\_, President

JAMES NORRIS HART, Dean. 5 Alumni Hall, 123 Main Street

CHARLES JOHN DUNN, Treasurer. 4 Alumni Hall, 51 Bennoch Street

JAMES ADRIAN GANNETT, Registrar. 2 Alumni Hall, 166 Main Street

ADDIE MATILDA WEED, Assistant Registrar. 2 Alumni Hall, Veazie

### OF THE COLLEGES AND EXPERIMENT STATION

JAMES STACY STEVENS, Dean of the College of Arts and Sciences. 200 Aubert Hall, 175 Main Street

HAROLD SHERBURNE BOARDMAN, Dean of the College of Technology. 12 Wingate Hall, 176 Main Street

LEON STEPHEN MERRILL, Dean of the College of Agriculture. 16 Winslow Hall, Campus

WARNER JACKSON MORSE, Director of the Maine Agricultural Experiment Station. Holmes Hall, 51 North Main St.

### OF THE DEPARTMENTS

AGRONOMY. Professor Simmons, 26 Winslow Hall, 4 Gilbert Street

ANCIENT HISTORY AND ART. Professor Huddilston, 28 Library, 193 Main Street

AGRICULTURAL EDUCATION. Professor Hill, 38 Winslow Hall, 162 College Road

ANIMAL INDUSTRY. Professor Corbett, 14 Winslow Hall, Campus

BACTERIOLOGY AND VETERINARY SCIENCE. Professor Russell, 13 Winslow Hall, 85 Main Street

BIOLOGICAL AND AGRICULTURAL CHEMISTRY. Professor Merrill, 15 Winslow Hall, 178 Main Street

BIOLOGY. Professor Chrysler, 24 Coburn Hall, 370 College Road

CHEMISTRY. Professor Brautlecht, 211 Aubert Hall, 167 Main Street

CHEMISTRY (AGRICULTURAL EXPERIMENT STATION). Professor Bartlett, Holmes Hall, 148 College Road

CIVIL ENGINEERING. Professor Sprague, 25 Wingate Hall, University Inn

ECONOMICS AND SOCIOLOGY. Professor Ashworth, 10 Coburn Hall, 94 North Main Street

- EDUCATION. Professor Pollard,, 28 Fernald Hall, 12 Park Street
- ELECTRICAL ENGINEERING. Professor Barrows, 21 Lord Hall, 36 Myrtle Street
- ENGINEERING DRAWING. Professor Grover, 38 Wingate Hall, 22 Myrtle Street
- ENGLISH. Professor Ellis, 10 Estabrooke Hall, 356 College Road
- ENTOMOLOGY (AGRICULTURAL EXPERIMENT STATION). Professor Patch, Holmes Hall, College Road
- FARM MANAGEMENT. Professor Simmons, 26 Winslow Hall, 4 Gilbert Street
- FORESTRY. Professor Briscoe, 24 Winslow Hall, 380 College Road
- FRENCH. Professor Segall, 14 Fernald Hall, 50 Main St.
- GEOLOGY. Professor Merrill, 15 Winslow Hall, 178 Main Street
- GERMAN. Professor Drummond, 14 Fernald Hall, 61 Bennoch Street
- HISTORY. Professor Colvin, 11 Coburn Hall, University Inn
- HOME ECONOMICS. Professor Freeman, 4 The Maples, North Hall
- HORTICULTURE. Professor Sweetser, 34 Winslow Hall, 80 Forest Avenue
- LATIN. Professor Chase, 15 Wingate Hall, 143 Main Street
- LAW. Professor Peabody, The Library, 115 Main Street
- MATHEMATICS AND ASTRONOMY. Professor Hart, 5 Alumni Hall, 123 Main Street
- MECHANICAL ENGINEERING. Professor Sweetser, 20 Lord Hall, 109 Main Street
- MECHANICS AND DRAWING. Professor Weston, 15 Wingate Hall, College Road
- MILITARY SCIENCE. Major James, Alumni Hall, 54 Forest Avenue, Bangor
- MUSIC. Director Sprague, 15 Wingate Hall, 217 Union Street, Bangor
- PHILOSOPHY. Professor Craig, 23 Wingate Hall, 32 College Road
- PLANT PATHOLOGY (AGRICULTURAL EXPERIMENT STATION). Professor Morse, Holmes Hall, 51 North Main Street
- PHYSICAL EDUCATION. Assistant Professor Schenkel, Alumni Hall, 120 Main Street
- PHYSICS. Professor Stevens, 200 Aubert Hall, 175 Main Street
- POULTRY HUSBANDRY. Professor Corbett, 14 Winslow Hall, Campus
- PUBLIC SPEAKING. Associate Professor Bailey, 1 Estabrooke Hall, 39 Mill Street
- SPANISH AND ITALIAN. Professor Peterson, 23 Fernald Hall, 104 North Main Street

## OF THE DORMITORIES

- KATE CLARK ESTABROOKE, Superintendent of Mt. Vernon House
- LOUISE HENDRICKSON, Superintendent of Balentine Hall
- MATTIE ALLEN MUNSON, Superintendent of Balentine Annex

## \*Faculty of Instruction

---

† ——— ——— ———, President

LUCIUS HERBERT MERRILL, Professor of Biological and Agricultural Chemistry.

B.S., Maine, 1883; Sc.D., 1908

JAMES NORRIS HART, Dean of the University and Professor of Mathematics and Astronomy.

B.C.E., Maine, 1885; C.E., 1890; M.S., Chicago, 1897; Sc.D., Maine, 1908

FREMONT LINCOLN RUSSELL, Professor of Bacteriology and Veterinary Science.

B.S., Maine, 1885; V.S., New York College of Veterinary Surgeons, 1886

JAMES STACY STEVENS, Dean of the College of Arts and Sciences and Professor of Physics.

B.S., Rochester, 1885; M.S., 1888, and Syracuse, 1889; LL.D., Rochester, 1907

JOHN HOMER HUDDILSTON, Professor of Ancient History and Art.

A.B., Baldwin, 1890 and Harvard, 1893; Ph.D., Munich, 1897

JACOB BERNARD SEGALL, Professor of French.

B.S., and B.L., Jassy, 1884; Ph.D., Columbia, 1893

HAROLD SHERBURNE BOARDMAN, Dean of the College of Technology and Head of the Department of Civil Engineering.

B.C.E., Maine, 1895; C.E., 1898

GEORGE DAVIS CHASE, Professor of Latin.

A.B., Harvard, 1889; A.M., 1895; Ph.D., 1897

CAROLINE COLVIN, Professor of History.

A.B., Indiana, 1893; Ph.D., Pennsylvania, 1901

CHARLES PARTRIDGE WESTON, Professor of Mechanics and Drawing.

B.C.E., Maine, 1896; C.E., 1899; A.M., Columbia, 1902

WALLACE CRAIG, Professor of Philosophy.

B.S., Illinois, 1898; M.S., 1901; Ph.D., Chicago, 1908

MINTIN ASBURY CHRYSLER, Professor of Biology.

B.A., Toronto, 1894; Ph.D., Chicago, 1904

JOHN MANVERS BRISCOE, Professor of Forestry.

M.F., Yale, 1909

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\*Arranged in groups in order of seniority of appointment

†At present the affairs of the university are administered by the Executive Committee of the Board of Trustees and the Deans



LEON STEPHEN MERRILL, Dean of the College of Agriculture and Director of Agricultural Extension Service.

M.D., Bowdoin, 1889

GEORGE EDWARD SIMMONS, Professor of Agronomy.

B.S., Ohio Northern, 1902; M. S., 1905; B.Sc., Ohio State, 1909

WILLIAM EDWARD BARROWS, Jr., Professor of Electrical Engineering.

B.S., Maine, 1902; E.E., 1908

LAMERT SEYMOUR CORBETT, Professor of Animal Industry.

B.Sc., Massachusetts Agricultural College, 1909; M.S., Kentucky, 1913

FRANCES ROWLAND FREEMAN, Professor of Home Economics.

B.Sc., Ohio State, 1910; M.Sc., 1911

WILLIAM JORDAN SWEETSER, Professor of Mechanical Engineering.

S.B., Massachusetts Institute of Technology, 1901

CLARENCE WEBSTER PEABODY, Professor of Law.

A.B., Bowdoin, 1893; LL.B., Harvard, 1896.

ROY MERLE PETERSON, Professor of Spanish and Italian.

A.B., Coe College, 1906; A.M., Harvard, 1910; Ph.D., 1912

ROBERT RUTHERFORD DRUMMOND, Professor of German.

B.S., Maine, 1905; Ph.D., Pennsylvania, 1909

HERBERT STAPLES HILL, Professor of Agricultural Education.

A.B., Bowdoin, 1905

HARLEY RICHARD WILLARD, Professor of Mathematics.

B.A., Dartmouth, 1899; M.A., 1902 and Yale, 1910; Ph.D., 1912

JOHN H ASHWORTH, Professor of Economics and Sociology.

B.A., Emory and Henry College, 1906; Ph.D., Johns Hopkins, 1914

CHARLES ANDREW BRAUTLECHT, Professor of Chemistry.

Ph.B., Yale, 1906; Ph.D., 1912

HAROLD MILTON ELLIS, Professor of English.

B.A., Maine, 1907; M.A., 1908 and Harvard, 1909; Ph.D., 1913

LUTHER RICE JAMES, Professor of Military Science and Tactics.

Major, United States Army

HERMAN PITTEE SWEETSER, Professor of Horticulture.

B.S., Maine, 1910

RAYMOND LOWREY WALKLEY, Librarian.

B.A., Yale, 1909; M.A., 1910; B.L.S., New York State Library School, 1913

ARCHER LEWIS GROVER, Professor of Engineering Drawing.

B.M.E., Maine, 1887; B.S., 1902

EMBERT HIRAM SPRAGUE, Professor of Civil Engineering.

B.S., Dartmouth, 1900

ALBERT LEWIS FITCH, Professor of Physics.

A.B., Albion College, 1911; M. A., 1912; Ph.D., Michigan, 1916

LUTHER JOHN POLLARD, Professor of Education.

B.A., Lawrence College, 1910; M.A., Wisconsin, 1915

WALTER FRANK ADAMS, Professor of Military Science and Tactics.

B.S. in E.E., Norwich, 1912

Captain of Infantry, U. S. Army

LEON EDWARD NORRIS, Professor of Military Science and Tactics.

B.S. in Arch. E., Nebraska, 1916

Captain of Infantry, U. S. Army

ANDREW JACKSON NICHOLS, Professor of Military Science and Tactics.

First Lieutenant of Infantry, U. S. Army.

JAMES ADRIAN GANNETT, Registrar.

B.S., Maine, 1908

IRVING HILL BLAKE, Associate Professor of Biology.

A.B., Bates, 1911; A.M., Brown, 1912

BENJAMIN CALVIN KENT, Associate Professor of Mechanical Engineering.

B.S., Maine, 1912

ARTHUR ST. JOHN HILL, Associate Professor of Electrical Engineering.

E.E., Polytechnic Institute of Brooklyn, 1911

ALPHEUS CROSBY LYON, Associate Professor of Civil Engineering.

B.S., Maine, 1902; S.B., Massachusetts Institute of Technology, 1904;

C.E., Maine, 1913

BERTRAND FRENCH BRANN, Associate Professor of Chemistry.

B.S., Maine, 1909; M.S., 1911; M.S., Massachusetts Institute of Technology, 1912

AVA HARRIET CHADBOURNE, Associate Professor of Education.

B.A., Maine, 1915; M.A., 1918; Columbia, 1919

J HOWARD TOELLE, Associate Professor of Economics and Sociology.

A.B., Indiana, 1913; LL.B., 1914; A.M., 1916

FRANÇOIS JOSEPH KUENY, Associate Professor of French.

B. ès L., University of Paris, 1897; L. ès L., Besançon, 1901

CHARLES HOWARD BATCHELDER, Associate Professor of Biology.

A.B., New Hampshire State College, 1913; M.S., 1915

MARK BAILEY, Associate Professor of Public Speaking

A.B., Yale, 1915; A.M., Michigan, 1917

HOWARD WATSON FLACK, Associate Professor of Physical Education.

A.B., Syracuse, 1914

JASON LESLIE MERRILL, Associate Professor of Chemistry.

Ph.B., Colby, 1901; B.S., Massachusetts Institute of Technology, 1905

HAROLD WALTER LEAVITT, Associate Professor of Civil Engineering.

B.S., Maine, 1915; C.E., 1918; M.S., Maine, 1921

ROBERT HAMPDEN BRYANT, Graduate Manager of Athletics.

LESTER SAUNDERS HILL, Associate Professor of Mathematics.

B.A., Columbia, 1911; M.A., 1913

JAMES WELLINGTON WHALER, Associate Professor of English.

A.B., Princeton, 1911; A.M., 1917

---

HARRY WOODBURY SMITH, Assistant Professor of Biological and Agricultural Chemistry.

B.S., Maine, 1909

ALBERT AMES WHITMORE, Assistant Professor of History.

B.S., Maine, 1906; M.A., 1917

ADELBERT WELLS SPRAGUE, Director of Music. •

B.S., Maine, 1905; A.M., Harvard, 1907

LAURA ANDERSON, Assistant Professor of Home Economics.

B.S., Montana, 1916.

LLEWELLYN MORSE DORSEY, Assistant Professor of Animal Industry.

B.S., Maine, 1916

ROY FRANK THOMAS, Assistant Professor of Agricultural Education.

B.S., Maine, 1917

BENJAMIN COE HELMICK, Assistant Professor of Agronomy.

B.S., Iowa, 1914; M.S., Cornell, 1915

ESTHER MCGINNIS, Assistant Professor of Home Economics.

B.Sc., Ohio State, 1915

WALTER DAVIS EMERSON, Assistant Professor of Mechanical Engineering.

B.S., Maine, 1916; M.E., 1920

LEO HENRY DAWSON, Assistant Professor of Physics.

A.B., Clark College, 1912; A.M., Clark University, 1914

RUFUS WILLIAM MCCULLOCH, Assistant Professor of English.

A.B., North Carolina, 1906; A.M., 1911 and Harvard, 1913

ROBERT JOHN SCHENKEL, Assistant Professor of Physical Training.

INEZ BOWLER, Assistant Librarian.

A.B., Colby, 1907; B.S., Simmons, 1910

BERTHA JOSEPHINE HOWARD, Assistant Professor of Economics and Sociology.

B.A., Mount Holyoke, 1910; M.A., University of Michigan, 1917

HERBERT DeWITT CARRINGTON, Assistant Professor of German.  
Ph.B., Yale, 1884; Ph.D., Heidelberg, 1897

JOHN HENRY KIDNEY, Assistant Professor of Military Science and Tactics.  
Warrant Officer, U. S. Army.

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EVERETT WILLARD DAVEE, Instructor in Mechanical Engineering.

MARION STEPHANIE BUZZELL, Instructor in French.  
B.A., Maine, 1914; M.A., 1916

CHAUNCEY WALLACE LORD CHAPMAN, Instructor in Forestry.  
B.S., Maine, 1914; M.S., Maine, 1921

WALTER JOSEPH CREAMER, Instructor in English and Electrical Engineering.  
B.S., Maine, 1918; E.E., Maine, 1921

PLATT ASHLEY PEARSALL, Instructor in Chemistry  
B.S., Virginia Polytechnic Institute, 1915

FRANCES ELIZABETH ARNOLD, Instructor in Spanish and Italian.  
B.A., Maine, 1910

AARON BLESS, Instructor in Physics.  
B.S., Temple University, 1918; M.A., Maine, 1921

JAMES STROTHARD BROOKS, Instructor in Engineering Drawing.

FLORENCE LIBBY CHANDLER, Instructor in Bacteriology and Veterinary Science.  
B.S., Maine, 1920

ISRAEL CHASMAN, Instructor in English.  
A.B., Texas, 1916; A.M., 1918

ROBERT DOUGALL, Instructor in History.  
B.S., McGill, 1915

WESTON SUMNER EVANS, Instructor in Civil Engineering.  
B.S., Maine, 1918

EVERETT JOSHUA FELKER, Instructor in Civil Engineering.

LEIGH PHILBROOK GARDNER, Instructor in Animal Industry.  
B.S., Maine, 1920

SHERMAN JEWETT GOULD, Instructor in Physics.  
B.S., Bates, 1916

JOHN ELTON LODEWICK, Instructor in Biology.  
B.S., New York State School of Forestry, 1919; M.S., 1920

WARREN STANHOPE LUCAS, Instructor in Mathematics.  
B.A., Maine, 1914

GERTRUDE DEVITT PEABODY, Instructor in Home Economics.  
B.S., Maine, 1920

- HARRY ROY PERKINS, Instructor in Mechanical Engineering.  
JOHN ANTHONY STRAUSBAUGH, Instructor in Spanish and Italian.  
A.B., Dickinson, 1919
- HAROLD CLAYTON SWIFT, Instructor in Agronomy.  
B.S., Maine, 1918
- HARRY DEXTER WATSON, Instructor in Mechanical Engineering.  
B.S., Maine, 1920
- HAROLD CHANDLER WHITE, Instructor in Chemistry.  
B.S., Maine, 1915; C.E., Maine, 1921
- JOHN NEWELL CROMBIE, Instructor in Chemistry.  
B.Chem., Pittsburgh, 1916
- MARK BRADEN ASHLEY, Instructor in Military Science and Tactics.  
Sergeant, U. S. Army.
- MARCIA EDGERTON BAILEY, Instructor in Physical Education.  
A.B., Oberlin College, 1915
- FRANK SWAN BEALE, Instructor in Mathematics.  
B.S., Maine, 1921
- MARION KATHARYN BRAGG, Instructor in English.  
B.A., Maine, 1921
- EDWARD CHOATE BROWN, Instructor in Mathematics.  
A.B., \*Harvard, 1918
- DOROTHY KOHN CHASMAN, Instructor in English  
B.S., College of Industrial Arts, 1920
- HOWARD LLOYD FLEWELLING, Instructor in English.  
B.A., Dartmouth, 1921
- THELMA LOUISE KELLOGG, Instructor in English.  
B.A., Maine, 1918
- WARREN EDWARD LORING, Instructor in Mathematics.  
B.S., Tufts Engineering School, 1918
- MILTON ROLAND LOURIA, Instructor in Chemistry.  
B.A., Columbia, 1918
- WALTER WILLIAM PURDY, Instructor in Chemistry.  
B.S., University of Akron, 1919
- WILLIAM EUGENE REYNOLDS, Instructor in Biology.  
B.S., Maine, 1917
- EVERETT LOUIS ROBERTS, Instructor in Electrical Engineering.  
B.S., Maine, 1920
- GEORGE MERVIL SEELEY, Instructor in Chemistry.  
A.B., Bates, 1913
- CHARLES ROBERT STROTHER, Instructor in Military Science and Tactics.  
First Sergeant, U. S. Army

WALTER WENTWORTH WIGGIN, Instructor in Horticulture.  
B.S., New Hampshire State, 1921

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MADELINE MOORE, Assistant in the Library.

MILDRED AVA BEATHAM, Assistant in English

HERBERT BURR ABBOTT, Mechanician in the Mechanical Engineering  
Department.

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WILLIAM DAVID FULLER, Lecturer in Education.  
Ph.B., Wisconsin, 1910; A.M., Maine, 1917

TRUE CLIFFORD MORRILL, Lecturer in Education.  
B.A., Bates, 1907; M.A., Columbia, 1919

JAMES FRANKLIN CARTER, Lecturer in Education.  
B.S., Bowdoin, 1917

JEANNE CHARLOTTE CHANTRELLE, Lecturer in French (Summer Term).  
S.B., Lycée de Toulouse, 1917; A.B., Carleton College, 1920

PERCY GOODING, Lecturer in Chemistry.  
S.B., Massachusetts Institute of Technology, 1916

## Faculty of Extension Service

(COLLEGE OF AGRICULTURE)

LEON STEPHEN MERRILL, Director.

M.D., Bowdoin, 1889

RAYMON NEALE ATHERTON, County Agricultural Agent, Androscoggin and Sagadahoc Counties.

B.S., Maine, 1920

IVA VIOLA BARKER, Home Demonstration Agent, Penobscot County.

B.S., Maine, 1921

HARRY ELMER BICKFORD, Assistant County Agricultural Agent, Aroostook County.

HENRY STYLES BRIDGES, County Agricultural Agent, Hancock County.

RUTH FERN CANEY, Home Demonstration Agent, Cumberland County.

HELEN LOUISE CLARK, Home Demonstration Agent, Kennebec County.

B.S., Connecticut State, 1919

LEONARD SHERMAN CLEAVES, Specialist in Sheep Husbandry.

D.V.S., McGill, 1895

CHARLES EDWARD CROSSLAND, Executive Secretary to Director of Extension Service.

B.S., Maine, 1917

ABRAHAM LINCOLN TASKER CUMMINGS, Agricultural Editor.

CLARENCE ALBERT DAY, County Agricultural Agent, Kennebec County.

ARTHUR LOWELL DEERING, County Agent Leader.

B.S., Maine, 1912

RICHARD BOULSBY DODGE, County Agricultural Agent, Penobscot County.

B.S., Maine, 1917

NORMAN SYLVESTER DONAHUE, County Agricultural Agent, Waldo County.

B.S., Maine, 1915

DORIS BURKETT EASTMAN, Home Demonstration Agent, Waldo and Washington Counties.

B.S., Maine, 1921

ALFREDA ELLIS, Assistant State Club Leader.

B.S., Maine, 1917

ALBERT KINSMAN GARDNER, Specialist in Crops.

B.S., Maine, 1910

WILLIAM MELVIN GRAY, County Agricultural Agent, York County.

B.S., Maine, 1912

MARION GRACE HARE, Home Demonstration Agent, Somerset County.



- FLORA ADELAIDE HOWARD, Home Demonstration Agent, Piscataquis County.  
B.S., Maine, 1917
- ALICE EVELYN HOWE, Home Demonstration Agent, Hancock County.
- ROSALIND MAY JEWETT, Home Demonstration Agent Leader.  
B.S., Colby, 1910
- MAURICE DANIEL JONES, Farm Management Demonstrator.  
B.S., Maine, 1912
- CHARLES CARLYLE LARRABEE, County Agricultural Agent, Piscataquis County.
- RAYMOND HARWOOD LOVEJOY, County Agricultural Agent, Oxford County.  
B.S., Maine, 1921
- ANITA NICHOLSON, Home Demonstration Agent, Knox-Lincoln and Oxford Counties.
- JOHN HARVEY PHILBRICK, Acting County Agricultural Agent, Aroostook County.  
B.S., Maine, 1915
- JAMES HAYES PULSIFER, County Agricultural Agent, Franklin County.
- WILFRED SHERMAN ROWE, County Agricultural Agent, Cumberland County.
- LESTER HALE SHIBLES, State Club Leader.  
A.B., Colby, 1915
- HELEN SPAULDING, Home Demonstration Agent, York County.  
B.S., Simmons, 1913
- CLAYTON ALTON STORER, County Agricultural Agent, Somerset County.  
B.S., Maine, 1918
- RICHARD FOSTER TALBOT, Specialist in Dairy Husbandry.  
B.S., Maine, 1907
- BERTRAM TOMLINSON, County Agricultural Agent, Washington County.
- RALPH CARLTON WENTWORTH, County Agricultural Agent, Knox and Lincoln Counties.  
B.S., Maine, 1918
- LOUISE RICHMOND WHITCOMB, Specialist in Home Economics.  
B.S., Simmons, 1915
- AMY ANN WHITFORD, Home Demonstration Agent, Franklin County.  
B.S., Rhode Island, 1920
- OSCAR MILTON WILBUR, Specialist in Poultry Husbandry.  
M.S., Maine, 1917
- MARTHA ROBERTS YORK, Home Demonstration Agent, Androscoggin and Sagadahoc Counties.

## Faculty of Investigation

(THE MAINE AGRICULTURAL EXPERIMENT STATION)

WARNER JACKSON MORSE, Director and Plant Pathologist.

B.S., Vermont, 1898; M.S., 1903; Ph.D., Wisconsin, 1912

ALICE WOODS AVERILL, Laboratory Assistant.

JAMES MONROE BARTLETT, Chemist.

B.S., Maine, 1880; M.S., 1883

MILDRED REBECCA COVELL, Clerk in Biology.

DONALD FOLSOM, Associate Plant Pathologist.

A.B., Nebraska, 1912; A.M., Minnesota, 1914; Ph.D., 1917

ESTELLE MARCHO GOGGIN, Clerk.

MARJORIE EUNICE GOOCH, Scientific Aid.

B.S., Maine, 1919

BEATRICE GOODINE, Laboratory Assistant.

JOHN WHITTEMORE GOWEN, Biologist.

B.S., Maine, 1914; M.S., 1915; Ph.D., Columbia, 1917

CHARLES CLYDE INMAN, Clerk.

\*HUGH CURTIS McPHEE, Scientific Aid.

B.S., Maine, 1918; M.S., Maine, 1921

VIOLA LOUISE MORRIS, Seed Analyst.

MARY LEONICE NORTON, Clerk.

EDITH MARION PATCH, Entomologist.

B.S., Minnesota, 1901; M.S., Maine, 1910; Ph.D., Cornell, 1911

EDGAR RAYMOND RING, Superintendent of Aroostook Farm.

A.B., Maine, 1918

KARL SAX, Biologist.

B.S., Washington State, 1916; M.S., Harvard, 1917

WELLINGTON SINCLAIR, Superintendent of Highmoor Farm.

ELMER ROBERT TOBEY, Associate Chemist.

B.S., Maine, 1911; M.S., 1917; Ch.E., Maine, 1920

CHARLES HARRY WHITE, Assistant Chemist.

Ph.C., Maine, 1897

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\*Resigned November 1, 1921

## COMMITTEES OF THE FACULTY

ADMINISTRATION—The Deans

ALUMNI RELATIONS—Gannett, Hart, Towner, Emerson

ATHLETICS—Grover, Gannett, Lyon, Sprague, Pollard

AUDITING—Merrill, L. H., Helmick, Kueny

GRADUATE STUDY—Chase, Brautlecht, Colvin, Corbett, Ellis, Merrill, L. H.,  
Morse, Willard

HEALTH—Chrysler, Craig, Freeman, Russell

HONORS—Sweetser, H. P., Anderson, Kent, Carrington, Merrill, J. L.

LIBRARY—Walkley, Ashworth, Barrows, Huddilston, Segall, Simmons

MILITARY—James, Boardman, Dorsey

RULES—Peterson, Fitch, Smith

SCHEDULE—Weston, Gannett, The Deans

SECONDARY SCHOOL RELATIONS—Hart, Freeman, Chase, Ellis, Hill, H. S.,  
Pollard

SOCIAL AFFAIRS—Briscoe, Batchelder, Colvin, Toelle

STUDENT ACTIVITIES—(NON-ATHLETIC)—Sweetser, W. J.

DRAMATICS—Bailey, Blake, Howard

MUSIC—Sprague, A. W., Whitmore, Drummond

PUBLIC SPEAKING—Bailey, Pollard, Whaler

STUDENT PUBLICATIONS—Ellis, Leavitt, Peabody

MISCELLANEOUS—Brann, Hill, A. S., Dawson

## General Information

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### HISTORY

The University of Maine is a part of the public educational system of the State. It was established as a result of the Morrill Act approved by President Lincoln, July 2, 1862. The State of Maine accepted the conditions of this act in 1863. In 1865 the State created a corporation to administer the affairs of the college. The original name of the institution was the State College of Agriculture and the Mechanic Arts. The name was changed to the University of Maine in 1897.

The first Board of Trustees was composed of 16 members, each county delegation in the Legislature selecting one member. Various changes have occurred in the appointment of Board members. At the present time seven members of the Board are appointed by the Governor of the State, with the advice and consent of the Council, for a term of seven years. One member is appointed for three years by the Governor upon the nomination of the Alumni Association.

The institution opened September 21, 1868, with a class of 12 members and a faculty of two teachers. By 1871 four curricula had been arranged,—Agriculture, Civil Engineering, Mechanical Engineering, and Elective. By gradual growth these curricula developed into the College of Agriculture, the College of Technology, and the College of Arts and Sciences.

The Maine Agricultural Experiment Station was established as a division of the university by act of the Legislature of 1887, as a result of the passage by Congress of the Hatch Act. It succeeded the Maine Fertilizer Control and Agricultural Experiment Station which had been established in 1885.

The College of Law was opened in 1898. It was an integral part of the institution and until the year 1917 occupied quarters at the corner of Union and Second streets in Bangor. Since that time it has been located on the campus at Orono. It was abolished in 1920.

Graduate instruction has been given by various departments for many years. The first Master's degree was conferred in 1881. There is no provision for graduate work in advance of that required for the Master's degrees.

Beginning with 1902, a Summer Term has been held annually, consisting at first of five weeks, but now of six. It is designed for teachers in secondary schools and for college students who desire to take advantage of its opportunities, and it also gives some courses for those who seek an opportunity to make up entrance credits. The departments us-

ually offering courses are Chemistry, Economics and Sociology, Education, English, French, German, History, Latin, Mathematics and Astronomy, Physics, and Spanish and Italian.

The university is coeducational, women having been admitted since 1872, in compliance with special legal enactment.

## LOCATION

The university is located in Orono, an attractive town of 3,500 population, with good schools and three churches. The campus of 370 acres borders the Stillwater River, a branch of the Penobscot, and is of great beauty.

Orono is on the main line of the Maine Central Railroad, eight miles east of Bangor, half way between Kittery, the most southerly town in the State on the Maine Central Railroad, and Fort Kent, the most northerly town in the State on the Bangor and Aroostook Railroad. It is not far from the center of population of the State. In addition to steam railroad connection, there is half-hour trolley service to Bangor, nine miles, and Old Town, three miles from the campus. Bangor is the third city of the State in population and an important business center. The location of the university gives students who care to do so an opportunity to avail themselves of its social, religious, and other advantages. Old Town is a prosperous manufacturing city with about 7,000 inhabitants.

## BUILDINGS AND THEIR EQUIPMENT

**BALENTINE HALL.**—The Legislature of 1913 made an appropriation for the erection of one wing of a women's dormitory. This was completed September 1, 1914. The Legislature of 1915 made an appropriation for completing the building. The name was given in honor of Elizabeth Abbott Balentine, Secretary and Registrar of the university from 1895 to 1913. It contains accommodations for 110 women.

**HANNIBAL HAMLIN HALL.**—This is a men's dormitory completed in 1911. It contains four stories and a concrete basement. It was named for the Honorable Hannibal Hamlin, of Hampden and Bangor, the first president of the Board of Trustees. It will accommodate 156 students.

**MOUNT VERNON HOUSE.**—This is a wooden building, remodeled in 1898, and is a dormitory for women. It is a three story building and will accommodate 36 students.

**NORTH HALL.**—This building is used by the Home Economics Department for a Practice House as required under the Smith-Hughes law for teacher training. It is a two story frame house located on the campus. The faculty and seniors of the department reside here during the academic year.

OAK HALL.—This building was named for the Honorable Lyndon Oak, of Garland, a long-time member and president of the Board of Trustees. It is a four story building erected in 1871 and has 48 rooms for students.

UNIVERSITY INN.—This is a wooden building, located in the village of Orono, which the university has leased for a term of years. It is occupied chiefly by instructors and has accommodations for fifty persons.

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ALUMNI HALL.—This building was erected in 1900 and was given its name because part of the funds required for its erection were subscribed by the alumni of the university. It contains the gymnasium, chapel, and administrative offices.

AUBERT HALL.—This is a four story building including a high basement. It was named in honor of the late Alfred Bellamy Aubert, Professor of Chemistry from 1874 to 1910. It is used by the Departments of Chemistry and Physics.

COBURN HALL.—This building contains the Department of Biology and the museum and has recitation rooms for the Departments of History and Economics and Sociology. It was named for ex-Governor Abner Coburn, of Skowhegan, a former president of the Board of Trustees, and benefactor of the university.

ESTABROOKE HALL.—This building is used for the Departments of English and Public Speaking, and was named for the late Horace Melvyn Estabrooke, Professor of English from 1891 to 1908. It contains four recitation rooms, rooms for consultation purposes, and offices for the members of the departments.

FERNALD HALL.—This is the oldest building on the campus and was erected for the Department of Chemistry. It now contains the Departments of French, Spanish and Italian, Education, Mathematics, and the University Store. It was named in honor of ex-President Merritt C. Fernald.

HOLMES HALL.—This building contains the offices and laboratories of the Maine Agricultural Experiment Station. It is a two story building in addition to a basement. It was named for Dr. Ezekiel Holmes, of Winthrop.

LIBRARY BUILDING.—The Library Building is of stone, two stories above a basement and surmounted by a dome. For its erection and furnishing, Mr. Andrew Carnegie gave \$55,000, and the Hallowell Granite Works furnished the granite at a price that was equivalent to a gift of several thousand dollars. The stacks, which are in the rear of the main building, contain shelf room for 60,000 volumes.



**LORD HALL.**—This building was erected for the Departments of Electrical Engineering and Mechanical Engineering. It is two stories in height and contains recitation rooms, laboratories, shops, drawing rooms, and offices for the members of these departments. It was named for the Honorable Henry Lord, of Bangor, a former president of the Board of Trustees.

**STEWART HALL.**—This building is situated in Bangor and contains offices and recitation rooms of the College of Law. It is three stories in height and was named for Honorable D .D. Stewart, of St. Albans, Maine, who has been a generous benefactor of this college.

**WINGATE HALL.**—This building contains three stories and a basement. It is used by the Departments of Civil Engineering and Mechanics and Drawing, and includes recitation rooms and offices for the Departments of Latin, Philosophy, and Music.

**WINSLOW HALL.**—This is a four story building including the basement. It contains offices, laboratories, and recitation rooms for the various departments of the College of Agriculture. It was named in honor of Honorable Edward B. Winslow, of Portland, a former president of the Board of Trustees. In the rear of this building is located the stock judging pavilion, which is an octagonal structure, having a seating capacity of 600.

**DAIRY BUILDING.**—This building contains various rooms appropriate for the Department of Dairy Husbandry. It is supplied with necessary appliances for teaching methods of handling milk, cream, butter, and cheese.

**FARM BUILDINGS.**—These comprise two large dairy barns, a horse barn, a hay storage barn, two tool houses, and a piggery. The farm of the university is composed of parcels of land aggregating 473 acres, of which 120 acres are under cultivation.

**HORTICULTURAL BUILDING.**—This includes a set of greenhouses east of Holmes Hall and furnishes opportunity for demonstration of the practical culture of flowers and vegetables under glass.

**INFIRMARY.**—This building is used in caring for cases of infectious diseases that may appear among the students. It is located in the rear of Hannibal Hamlin Hall.

**OBSERVATORY.**—The astronomical observatory stands on a slight elevation east of Alumni Hall. It contains equipment for work in descriptive and practical astronomy.

**POULTRY PLANT.**—The part of the plant that belongs to the College of Agriculture consists of a two and one-half story building to which are attached brooder houses. The plant which belongs to the Agricul-



tural Experiment Station contains an incubator house with tenement above, two poultry houses, a two story house, a building containing a hospital for hens, and rooms for digestion experiments.

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**ATHLETIC FIELD.**—Alumni Field, so called because funds required for its construction were contributed by the Alumni Association, is located at the northern end of the campus. It contains a quarter-mile cinder track, with a 220-yard straightaway, and is graded and laid out for football, baseball, and track and field athletics. It contains a grandstand with a seating capacity of 2,100. There is also an out-door board running track 390 feet long by 12 feet wide.

**CENTRAL HEATING PLANT.**—The Central Heating Plant is located on low ground so that the buildings drain by gravity to the plant. It contains five 150 h. p. boilers, two Worthington duplex return pumps, and scales for weighing coal.

**FRATERNITY HOUSES.**—The local chapters of Beta Theta Pi, Delta Tau Delta, Kappa Sigma, Phi Gamma Delta, Phi Kappa Sigma, Sigma Alpha Epsilon, Theta Chi, Sigma Nu, and the Phi Eta Kappa Society have houses on the campus. The local chapters of Lambda Chi Alpha, Phi Epsilon Pi, and Sigma Phi Sigma own houses adjoining the campus on College Road. The local chapters of Alpha Tau Omega and Sigma Chi own houses on North Main Street. These houses accommodate from 25 to 50 students each.

**PRINT SHOP.**—The University Press is located in a wooden building north of Aubert Hall. It contains a modern outfit for the printing required by the university.

**OTHER BUILDINGS.**—In addition to the buildings already described, there are several others devoted to various purposes. Among these are the President's house and five residences occupied by members of the faculty.

## THE LIBRARIES

The university libraries contain (June 30, 1921) about 70,000 books and bound periodicals, and over 21,000 pamphlets. The fields of agriculture, mathematics, physics, chemistry, and technology are strongly represented by sets of scientific journals and reports, as well as by the current publications which have been added by purchase. Other fields have excellent working collections for undergraduates, built up mainly by the efforts of heads of departments, and there are many long sets of general periodicals.

The university library is a designated depository for United States government documents, and its general collection has been strengthened

by donations and deposits as follows: over 1000 mathematical and educational books given by President Aley; over 500 volumes of English literature and philology from the library of the late Professor H. M. Estabrooke; and the valuable horticultural library bequeathed by the late Professor W. M. Munson.

The departments of physics, education, and English, and the College of Agriculture have good reference working collections which have been withdrawn for their use from the university library. This does not, however, prevent their recall for general use.

The Agricultural Experiment Station library of about 4800 volumes is shelved with the general library, and is available for consultation, but not for general circulation, except with the director's permission. It contains many valuable sets of scientific journals, the current numbers being on file in Holmes Hall.

The Law library, containing over 5500 volumes, is shelved in the Library building. It includes many complete sets of the reports of the United States and of the New England and some other states, the English Reports and English Ruling Cases, the most important encyclopedias, and an excellent collection of text books.

About 325 periodicals are subscribed for by the university library, in addition to about 75 taken at the Experiment Station, and over 150 others are received as gifts. Of the total number, over half are of a scientific nature, including technological and agricultural journals. The daily and weekly newspapers are in a reading room in the basement of the library building, and the current numbers of the technical engineering journals are available for general use in Wingate Hall.

The reading and seminar rooms of the library building will seat about 150 students, and access to the shelves is entirely unrestricted. The books are classified by the Dewey decimal system, and the main card catalog indexes all volumes by author, subject, and title. There is a special card catalog in the agricultural seminar room which indexes all papers and articles in the publications of the United States Department of Agriculture and the Agricultural Experiment Stations of the various states.

The library building is open daily during the academic year from 8.00 a. m. to 5.30 p. m. and from 7.00 to 9.00 p. m. on Monday, Tuesday, Wednesday, and Thursday. Hours on other days are: Friday, 8.00 a. m. to 5.30 p. m.; Saturday, 8.00 a. m. to 12 noon; Sunday, 2.30 to 4.30 p. m.; holidays, 8.00 a. m. to 12 noon.

Students may borrow three volumes at a time from the general library, to be retained three weeks; if more are desired or if need exists to retain them for a longer period, application should be made to the Librarian. A fine of two cents a day is collected for overdue books.

Reference books do not circulate and special regulations are made for books reserved at the request of instructors. \* Unbound periodicals may be borrowed over night upon application to the desk assistant. Members of the faculty may borrow any reasonable number of volumes without time limit, but all books must be returned nine days before Commencement. Books will be loaned to other libraries, to schools, and to residents of the State when it can be done without interference with local needs, the borrower paying transportation charges in both directions.

## MUSEUM OF NATURAL HISTORY

MINTIN ASBURY CHRYSLER

*Curator of the Botanical and Zoological Collections*

LUCIUS HERBERT MERRILL

*Curator of the Geological Collections*

The museum occupies the wing of Coburn Hall and adjoining rooms in the main part of the building.

ZOOLOGICAL COLLECTIONS.—These collections occupy the lower floor of the wing of Coburn Hall. Some of the alcoholic and formalin material is placed in wall cases in the biological laboratories. The collections consist of a number of the larger mammals of the State; a small set of exotic mammals; a more complete working collection of native birds, birds' nests, and eggs; an illustrative collection of the other groups of vertebrates; a rather large collection of the shells of native and exotic molluscs; and illustrative collections of the other groups, dry, alcoholic, and prepared as microscopic objects.

BOTANICAL COLLECTIONS.—These collections are situated in rooms on the second and third floors. The herbarium includes several collections of considerable value, the most important of which is the one made by the late Rev. Joseph Blake and presented to the university by Mr. Jonathan G. Clark of Bangor. It contains more than 7,000 species of both flowering and flowerless plants, and represents more especially the flora of Maine and other New England States, but includes many forms from the Western United States, Mexico, and the West Indies, and a number from many of the European and Asiatic countries, and from Africa and Australia. The late Professor F. L. Harvey left to the herbarium the general collections accumulated during his connection with the university, and his special collection of the weeds and forage plants of Maine, comprising 300 species. Other important collections are Collins's Algae of the Maine Coast, Halsted's Lichens of New England, Halsted's Weeds, Ellis and Everhart's North American Fungi, Cook's Illustrative

Fungi, Underwood's Hepaticae, Cummings and Seymour's North American Lichens, and a collection of economic seeds prepared by the United States Department of Agriculture.

Collections other than the herbarium include exhibits illustrating the manufacture of paper and cocoa, the wood and bark features of the timber trees of Maine, conifers mounted in jars, plants used in pharmacy, commercial fibres, and artificial silk. A valuable collection of fossil plants was presented by Professor Harvey.

**GEOLOGICAL COLLECTIONS.**—These collections, occupying the upper floor of Coburn Hall, are accessible daily during the college year, except on Saturdays and Sundays. They include the more important fragmental, crystalline, and volcanic rocks; a collection of building stones; a series designed to illustrate the rocks of the State; a general collection of the more common minerals; a collection of economic minerals furnished by the United States National Museum; an educational series of rocks furnished by the United States Geological Survey; and a small collection of plant and animal fossils.

The part of the museum illustrating the mineral resources of the State may be made of great value, both from the scientific and economic standpoint. Students and others residing in the State are urged to contribute specimens from their home localities.

## ART COLLECTION

This collection consists of photographs, prints, engravings, polychrome reproductions, and plaster casts. Many of the large reproductions are framed and the entire collection has found a fitting home in the Library building, the gallery of which is well adapted to the exhibition of many of the plaster-cast reliefs and the larger framed works. The collection is distributed on the first and second floors, in the lecture room, and a seminar room. In the latter is a specially constructed cabinet for mounted photographs.

The entire collection numbers upwards of 4,000 reproductions of various sorts covering the fields of Classical and Renaissance architecture, sculpture, and painting. The illustrations for the Greek, Florentine, and Venetian schools are particularly representative. For much of the most important work the photographs are supplemented by lantern slides.

The university possesses many of the famous polychrome prints published by the Arundel Society. These and many other colored reproductions covering nearly all the great masters of Italian painting have been framed; and in the case of the *Madonna della sedia* and the *Sistine Madonna* the reproductions were imported in the frames, which are stucco copies of the originals in Dresden and Florence.

The lecture room in the Library building contains examples of the work of the chief Florentine and Umbrian masters of the 14th and 15th centuries, arranged on the walls in historical sequence. The gallery of the second floor is devoted to masters of the High Renaissance.

For the study of Greek and Roman antiquity the university possesses a large collection of photographs and lantern slides.

## ORGANIZATIONS

**AGRICULTURAL CLUB.**—This organization is composed of students taking agricultural courses. Meetings are held thruout the college year, at which important agricultural topics are discussed by members of the club, and also by prominent speakers from this and other states.

**AMERICAN CHEMICAL SOCIETY.**—The Maine Section of the American Chemical Society has its headquarters at Orono. Some students in the Department of Chemistry are members, and all are welcome to its meetings.

**AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.**—This is an organization for the promotion of the students' interest in electrical engineering work, and to keep him in touch with the latest developments in this branch of engineering activity. Membership in the branch is extended to members of the Electrical Engineering faculty, students pursuing the Electrical Engineering curriculum, and to members and associate members of the Institute.

**AMERICAN SOCIETY OF MECHANICAL ENGINEERS.**—A regularly organized branch of this society holds regular meetings for the presentation and discussion of engineering papers by members and by visiting engineers.

**AMERICAN SOCIETY OF CIVIL ENGINEERS.**—This branch of the society is composed of the students who are enrolled in the curriculum in Civil Engineering. The object of the society is to investigate by reading and discussion the various engineering topics of the day. Monthly lectures are given under the direction of the society by members of the faculties of this and other institutions and by practicing engineers. The affairs of the branch are controlled by the students under the advice of the department.

**CONTRIBUTORS' CLUB.**—This organization, composed of students and members of the faculty who have shown ability in writing, has as its object the cultivation of the literary talents of its members and the general encouragement of literary effort in the university community. Meetings are held twice monthly, at which original stories, essays, and poems are read and criticized by the club members.

**CERCLE FRANÇAIS.**—The object of the Cercle Français is to cultivate the spoken French language and arouse and stimulate an interest in the



intellectual life of France. The work is carried on in French. Papers are read and discussed and addresses delivered by the members. Plays are studied with a view toward production in French. The Cercle meets once in two weeks.

**CIRCULO ESPAÑOL.**—This organization was established in 1921 to afford additional practice in the use of the Spanish language, and to promote a knowledge of the culture of Spain as well as of the Spanish American nations. Meetings with programs in Spanish are held every three weeks. Majors in the Department of Spanish and other properly qualified students are eligible for membership.

**FORESTRY CLUB.**—All students majoring in the curriculum in Forestry are eligible for membership in the Forestry Club. The purpose of the club is to give an opportunity for presenting informal discussions and technical papers on forestry subjects, and to promote cooperation and general good fellowship among the forestry students. The meetings are held monthly.

**HOME ECONOMICS CLUB.**—This organization is composed of students majoring in Home Economics. Meetings are held regularly once a month at North Hall, the practice house. The object of the society is to keep in touch with current problems in Home Economics, the programs being conducted primarily by the students themselves. The organization also aims to promote cooperation and interest between students and graduates, by the appointment of an alumnae representative for the purpose of sending news to the club from those engaged in the various lines of work.

**MATHEMATICS CLUB.**—All students majoring in mathematics and others who are interested in the study of the subject are eligible for membership in the Mathematics Club. The purpose of this club is to stimulate interest in the study of mathematics and to give to mathematics students the opportunity to present papers and take part in discussions. Meetings are held monthly.

**MAINE MASQUE.**—This is a dramatic club which aims to make a practical study of the acted drama, and to present each year before the public one or more representative plays. Membership is determined by competitive trials to which all men undergraduates are eligible.

**MENORAH ASSOCIATION.**—An intercollegiate organization for the study and advancement of Jewish culture and ideals.

**PRESS CLUB.**—This organization, comprising the press correspondents for the chief newspapers of the state and New England, meets weekly for the purpose of gathering and disseminating news of interest and value to the university.

**SPEAKERS' CLUB.**—A local honorary society, open to all students who acquire a sufficiently high standing in public debate and oratory. The object of the club is to promote interest in public speaking at the uni-

versity. It is in active cooperation with the Department of Public Speaking, and superintends some of the minor activities in oratory and debate.

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MAINE CHRISTIAN ASSOCIATION.—The Maine Christian Association, composed of men students, has for its object the promotion of Christian fellowship and aggressive Christian work. Classes for the study of the Bible are conducted during the week.

YOUNG WOMEN'S CHRISTIAN ASSOCIATION.—This is an organization for religious work composed of women students.

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ALPHA CHI SIGMA.—Alpha Chi Sigma is a professional fraternity with chapters in various American colleges and universities. The members are elected from those whose major work is in the Department of Chemistry.

ALPHA ZETA.—The Maine chapter of Alpha Zeta, the national agricultural fraternity, was organized at the university in 1905. Chapters exist in twenty-seven other universities. Membership is honorary and is restricted to students attaining high class standing or to graduates who have shown marked ability along the lines of agricultural study and research.

PHI KAPPA PHI.—The Phi Kappa Phi is an honor society. Early in the fall semester of the senior year the seven members of the class having the highest standing are elected members, and during the spring semester the ten next highest may be elected.

SCABBARD AND BLADE.—Scabbard and Blade is an honorary military fraternity. Active membership is restricted to cadet officers of high moral and scholastic standing. Honorary members may be elected from commissioned officers of the United States Army; also non-military persons deemed worthy of the honor. The University of Maine company (Co. D., 2nd Reg't.) was organized in 1916. Companies exist in seventeen other colleges and universities.

SIGMA DELTA CHI.—This is an honor fraternity open to sophomores, juniors, and seniors who have shown unusual ability in the various courses in journalism, and who propose to enter upon journalism as a profession.

TAU BETA PI.—Tau Beta Pi is an honor fraternity for engineers and has chapters in leading universities and technical schools. Elections are made from those juniors and seniors in engineering who have shown high mental and moral qualifications.

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UNIVERSITY BAND.—This is a military and concert organization attached to the Cadet Corps. It is composed of students in the Military



department, and rehearsals are conducted by the director of music as regular class work, for which the men receive credit. The band plays for various university functions and games and makes concert trips to nearby cities and towns.

UNIVERSITY CHORUS AND ORCHESTRA.—These bodies are organized from students, faculty, and outside assisting talent, and are conducted by the director of music. A varied repertoire of classic and lighter numbers are studied and performed at concerts and other occasions. Chorus members are admitted to the Maine Festival Chorus, and orchestra members of talent and proper training are given consideration whenever vacancies occur in the Bangor Symphony Orchestra, a semi-professional organization.

MUSICAL CLUBS.—Glee and mandolin clubs are maintained by both men and women students and concert trips are taken at intervals during the college year.

## UNIVERSITY PUBLICATIONS

UNIVERSITY OF MAINE STUDIES.—These are occasional publications containing reports of investigations or researches made by university officers or alumni.

MAINE BULLETIN.—This is a publication issued monthly during the academic year, to give information to the alumni and the general public. It includes the Annual Report and the Annual Catalog.

THE MAINE ALUMNUS.—This is published five times during the academic year by the General Alumni Association and is sent free to all former students of the university.

ANNUAL REPORT OF THE AGRICULTURAL EXPERIMENT STATION AND THE AGRICULTURAL EXPERIMENT STATION BULLETINS.—These give complete results of the work of investigation of the station. The Bulletins and Official Inspections are sent free on request to any resident of Maine.

OFFICIAL INSPECTIONS.—These are published by the Agricultural Experiment Station, and contain the result of the work of inspection of agricultural seeds, commercial feeding stuffs, commercial fertilizers, drugs, foods, fungicides, and insecticides.

EXTENSION BULLETINS AND EXTENSION NEWS LETTERS.—These publications are issued by the Agricultural Extension Department. A limited supply of the bulletins is available for distribution and will be forwarded on application. The News Letters are distributed to newspapers and persons whose names are on the classified mailing lists.

MAINE CAMPUS.—This is a paper published weekly during the academic year by an association of the students.

**PRISM.**—The Prism is an illustrated annual, published by the junior class.

**THE MAINE-SPRING.**—This is a literary magazine published four times a year. It is under the supervision of the Contributors' Club.

**PRACTICAL HUSBANDRY.**—This is a monthly magazine published under the direction of the Agricultural Club. It is devoted to practical and technical agriculture.

**MAINE LAW REVIEW.**—This is a magazine devoted to a discussion of law cases and other current legal problems.

## PUBLIC WORSHIP

A short service of a religious character is held in the chapel four days in the week. Students receive a cordial welcome at all services in the churches of Orono. Voluntary religious services are held each week under the direction of the Maine Christian Association and the Young Women's Christian Association.

## STUDENT REGULATIONS

It is assumed that all students entering the university are willing to subscribe to the following: *A student is expected to show, both within and without the university, respect for order, morality, and the rights of others, and such sense of personal honor as is demanded of good citizens and gentlemen.*

A pamphlet containing special information for the guidance of students may be obtained from the Registrar.

The quota of regular studies for each student varies from a minimum of fourteen hours to a maximum of eighteen hours in the College of Arts and Sciences, and from a minimum of seventeen hours to a maximum of twenty-two hours in the College of Agriculture and the College of Technology. In the application of this rule, two or three hours of laboratory work count as one hour.

Each student is expected to be present at every college exercise for which he is registered.

## SCHOLARSHIP HONORS

Scholarship honors are awarded to seniors whose scholarship places them in the first 15 per cent of their class. The names of students winning these honors are printed in the catalog.

## DEGREES

### BACHELORS' DEGREES

The degree of Bachelor of Arts (B. A.), with specification of the major subject, is conferred upon all students who complete a curriculum in the College of Arts and Sciences.

The degree of Bachelor of Science (B. S.) in the curriculum pursued is conferred upon students who complete the prescribed work of four years in the Colleges of Agriculture or Technology.

The degree of Bachelor of Pedagogy (B. Pd.) is conferred upon students in the College of Arts and Sciences who have completed a course in an approved high school, a course in a normal school, and two years under prescribed conditions at the university.

A minimum residence of one year is required for the attainment of any bachelor's degree.

### ADVANCED DEGREES

Graduate students, whether candidates for a degree or not, are required to register at the office of the university at the beginning of each semester or summer term. They must have their course of study approved by the Committee on Graduate Study at the beginning of their work. Those entering the university after that date must obtain the consent of the Committee on Graduate Study before they can count a full year's work.

Each candidate for the master's degree shall report before registering at the beginning of each semester or the summer term to the chairman of the committee or to some member representing a field of work nearly related to his own. Candidates for the degree of Master of Arts or Master of Science, must have received the corresponding bachelor's degree from this institution or from one granting a fully equivalent degree.

Candidates who are graduates of other institutions are required to present at registration credentials covering the courses pursued and the standing attained.

At least one year must elapse between the conferring of the bachelor's and the master's degree.

No work done before the recommending of the bachelor's degree shall be counted towards the master's degree.

The candidate shall devote at least one year to graduate resident study and shall complete work amounting to fifteen hours per week throughout the college year.

A registration fee of \$5 is charged, and an additional fee of \$15 for examinations and diploma is payable upon the completion of the work. One registration fee only is required of graduate students.

A fee of \$5.00 is required at the time of registration for a professional degree, and a fee of \$10.00 is required upon the presentation of the thesis.

The curriculum shall include work in one major department or subject in which the candidate has already pursued undergraduate study for at least two years, and work in not more than two minor subjects which bears a distinct relation to the general plan or purpose of the major subject.

At least three-fifths of the work must be done in the major subject. In special cases all the work may be done in one department. All of the work must be of advanced character and must be tested by examinations which the candidate shall pass with distinction. Final written examinations for all regular courses completed, together with a copy of the questions set, shall be deposited with the secretary of the committee.

The candidate shall prepare as a part of his curriculum a satisfactory thesis on some topic connected with the major subject. The thesis must be deposited in completed form with the Dean of the University on or before the date set for the oral examination.

At the end of the course of study for the master's degree, the candidate will be required to pass an oral examination covering his work, including the thesis work. This examination shall be open to all voting members of the faculty of the university. The time for such examinations will be arranged by the Dean of the University to accord, so far as possible, with the convenience of the candidate and the major instructor, between the dates of May 15 and June 1; but no student will be admitted to an oral examination until his thesis has been accepted. On May 15, the Dean of the University will notify the heads of all departments of the university of the dates set for the public oral examinations of all candidates of the year. While the examination will in each case, as a matter of course, be conducted chiefly by the members of the department in which the work has been done, any member of the faculty present at the examination has the privilege of questioning the candidate. The Committee on Graduate Study will be represented at each examination.

The professional degrees of Chemical Engineer (C. E.), Civil Engineer (C. E.), Electrical Engineer (E. E.), and Mechanical Engineer (M. E.) may be conferred upon graduates in the curricula in Chemistry, Chemical Engineering, Electrical Engineering, and Mechanical Engineering respectively, upon the presentation of satisfactory theses, after at least three years of professional work subsequent to graduation. During at least two of the years after graduation the candidate must have

occupied a position of responsibility. Candidates are expected to be present in person to receive their degrees.

## THESES

Theses shall be printed, or typewritten in black record, unless the subject matter prevents, and the paper used shall be a standard thesis paper, 8 x 10 1-2 inches, which may be procured at the University Store. Care should be taken to have a margin of one inch on the inner edge, at least one-half inch on the outer edge, one and one-half inches at the top, and one inch at the bottom of the page.

If drawings accompany the thesis, they may be bound in with the rest of the pages or placed in a pocket on the inside of the book cover; or if too many for this, they may be bound separately according to personal instructions of the head of the department.

A draft of all undergraduate theses must be passed to the major instructor before May 1.

Complete instructions may be found in a pamphlet entitled "Degrees and Theses."

## STUDENT EXPENSES

The estimates are prepared upon the basis of students living in university halls.

### ESTIMATE OF ANNUAL EXPENSES

	Students from within the State	Students from without the State
Tuition	\$125 00	\$195 00
Text-books	10 00 to 50 00	10 00 to 50 00
Board 36 weeks @ \$5.00	180 00	180 00
Room in a dormitory	36 00	36 00
	\$351 00 to \$391 00	\$421 00 to \$461 00

### SPECIAL CHARGES

A fee of \$2.00 is charged a student for each special examination.

Students registering after the prescribed day of registration for the fall or spring semester shall pay an additional fee of two dollars.

No laboratory fees are charged in any department.



## Rooms

The rooms in the Mt. Vernon House, Balentine Hall, Oak Hall, and the middle section of Hannibal Hamlin Hall accommodate two students each. All other rooms accommodate four students each.

Dormitory charges include steam heat and electric lights. The rooms in the dormitories for men are furnished with beds, mattresses, chiffoniers, desks, and chairs. Each resident in the dormitory has bed linen and three towels laundered each week without extra charge. Students furnish pillows, bed linen, and blankets.

Women students not living at home are required to live in one of the women's dormitories. In exceptional cases women students are allowed to live at some boarding house approved by the President. To secure the reservation of a room in a university dormitory, application, accompanied by a deposit of \$5.00, should be made to the Registrar.

## DEPOSITS TO COVER EXPENSES

The University requires all students to pay in advance. The payments indicated below are required at the beginning of each semester.

	Residents of Maine	Non-Residents of Maine
Tuition	62.50	97.50
Board and Room	108.00	108.00
Key Deposit (men only)	5.00	5.00
Total	175.50	210.50

For students who do not room and board in university halls the above amounts are reduced by \$113.00.

All men taking military are required to make a deposit of \$25.00 to cover cost of equipment.

## COMMUNICATIONS

Communications with reference to financial affairs of students should be addressed to the Treasurer of the University of Maine.

## KITTRIDGE LOAN FUND

This fund, amounting to nearly one thousand dollars, was established by Nehemiah Kittredge, of Bangor. It is in the control of the

President and the Treasurer of the University, by whom it is loaned to needy students in the three upper classes. In the deed of gift it was prescribed that no security but personal notes bearing interest at the prevailing rate should be required. Loans are made on the conditions that the interest be paid promptly, and that the principal be returned from the first earnings after graduation. Individual loans are limited to \$50.00.

## SCHOLARSHIPS AND PRIZES

THE KIDDER SCHOLARSHIP, thirty dollars, was endowed by Frank E. Kidder, Ph. D., Denver, Colorado, a graduate of the university in the class of 1879. This scholarship is awarded to a student whose rank excels in his junior year. The selection is made by the President and the Faculty.

NEW YORK ALUMNI ASSOCIATION SCHOLARSHIPS.—SCHOLARSHIP No. 1, fifty dollars, is offered for excellence in debating. In case the effort in debating does not justify this award in any year or years the amount shall be accumulative.

SCHOLARSHIP No. 2, fifty dollars, is offered annually to encourage advancement and proficiency in English, particularly along the lines which will assist toward facility in correct, clear, direct, and efficient written and oral expression in later professional, commercial, and civil life.

The candidates for this scholarship shall be juniors in the College of Technology. They shall assemble on an announced date and each one shall be required to compose an essay on a subject selected from a list of ten, of which five are chosen by the Department of English and five by the College of Technology. The award will be based upon the quality of the essay and the advancement which is indicated by the student's grade in courses in English. There shall be three judges one of whom shall represent the College of Technology and the other two shall be selected by the Department of English.

PITTSBURG ALUMNI ASSOCIATION SCHOLARSHIP, thirty dollars, awarded to a member of the junior class in the College of Technology. The ability of the student and his needs are considered in making this award. The selection is made by the President and the professors of the College of Technology.

PRIZE OF THE CLASS OF 1873. The late Russell W. Eaton, of Brunswick, a member of the class of 1873, deposited with the university treasurer a \$1000 Liberty Bond, the income of which shall be awarded annually to that member of the sophomore class who is able to show the greatest improvement in mechanical drawing during the first two years of his college course.

It is expected that candidates for this prize shall have had no training in mechanical drawing previous to entering the university.



WESTERN ALUMNI ASSOCIATION SCHOLARSHIP, thirty dollars, is awarded to a sophomore pursuing a regular curriculum whose deportment is satisfactory and who attains the highest rank of his class during the freshman year.

THE ELIZABETH ABBOTT BALENTINE SCHOLARSHIP was endowed by the Gamma chapter of Alpha Omicron Pi for a woman member of the sophomore class to be determined by the President and the faculty. This scholarship will be at least thirty dollars. Both scholarship and individual need are to be considered in the award.

THE PHI MU SCHOLARSHIP, thirty dollars, will be awarded each year to a woman student whose scholarship and conduct are deserving and who is in need of financial assistance. The selection will be made by the President of the university, the President of the sorority, and the faculty Committee on Honors.

THE JOSEPH RIDER FARRINGTON SCHOLARSHIP, a gift of Arthur M., Edward H., Oliver C., Horace P., and Wallace R. Farrington, all graduates of the University of Maine and sons of Mr. and Mrs. Joseph Rider Farrington. The gift amounts to \$1000 and provides a scholarship under conditions mentioned by the donors. The following order of preference is considered in awarding this scholarship: (a) To any direct descendant of Joseph Rider and Ellen Holyoke Farrington, or any one whom three of such descendants may select; (b) To any student bearing the surname Farrington or Holyoke; (c) To the student in the junior class of the College of Agriculture who attains the highest rank in studies and deportment during that year and who shall make application for the scholarship. Further details concerning this scholarship may be secured by consulting the Dean of the College of Agriculture.

STANLEY PLUMMER SCHOLARSHIP, Colonel Stanley Plummer of Dexter, Maine, provided a scholarship as set forth in the following paragraph from his will: I give and bequeath to the corporation of the University of Maine, Orono, Maine, the sum of One Thousand Dollars, the income thereof to be given to needy and deserving students in said University, to be selected by the Trustees of the university, who shall have full control of said fund, which shall be known as the "*Stanley Plummer Scholarship*." Students born in Dexter, Maine, shall have the preference; but, if there are none such, any needy and deserving students may be selected.

WALTER BALENTINE PRIZE, fifteen dollars, the gift of Whitman H. Jordan, Sc.D., LL.D., Orono, Maine, a graduate of the university of the class of 1875, is awarded to that student who excels in biological chemistry.

FRANKLIN DANFORTH PRIZE, ten dollars, the gift of the Hon. Edward F. Danforth, Skowhegan, a graduate of the university of the class of 1877, in memory of his father, Franklin Danforth, is awarded to that member

of the senior class in an agricultural curriculum who attains the highest standing.

THE WASHINGTON ALUMNI ASSOCIATION WATCH is presented to the member of the graduating class, who, in the opinion of the faculty and students, has done the most for the university during his course.

This award is made as the result of a secret ballot by the students and passed upon by the President and the faculty.

THE PENOBSCOT VALLEY ALUMNI ASSOCIATION SCHOLARSHIP, fifty dollars, is given to a student preferably from the Penobscot Valley whose college record is worthy of recognition and who needs some financial assistance.

THE TRACK CLUB SCHOLARSHIP, fifty dollars, is given by the Track Club to some member of the freshman class who needs financial help. He must be a man interested in track athletics but need not necessarily make his "M" in his freshman year. His scholarship must be satisfactory.

The awarding of this scholarship will be in the hands of a committee composed of the President of the Track Club, the Coach of the Track Team, and the Chairman of the faculty Committee on Honors. The winner will be given the scholarship upon his return to college at the beginning of his sophomore year. Applications for this scholarship must be made in writing and sent to the President of the Track Club before May 1.

THE ALPHA OMICRON PI ALUMNAE PRIZE, ten dollars, given by the Bangor Alumnae Chapter of Alpha Omicron Pi. The award is made to a woman student showing the greatest improvement in her work during her freshman year. The record at the Registrar's office showing the comparison of grades of the fall semester as compared with that of the spring semester will furnish the basis of award.

THE MENORAH PRIZE, ten dollars, the gift of the Maine Menorah Association, is awarded to the student who presents the best essay on any Jewish subject.

These essays should be presented to the Head of the Department of English previous to May 1.

JUNIOR EXHIBITION PRIZES, fifteen dollars each, are awarded to the members of the junior class who deliver the best orations at the junior exhibition. One prize is awarded to the man receiving the first rank in competition with the men of the junior class, and one prize awarded to the woman receiving first rank in competition with the women of the junior class. In the award of these prizes regard is given to thought, style, and delivery. Copies of these orations must be deposited with the Registrar before February 1.

SOPHOMORE ESSAY PRIZES, two of fifteen dollars each, one for men and one for women, are awarded to members of the sophomore class for ex-

cellence in composition. These essays must be presented by May 1.

CLASS OF 1908 COMMENCEMENT CUP is awarded to the class, the largest percentage of whose members register during Commencement week.

FRATERNITY SCHOLARSHIP CUP, presented to the university by the 1910 Senior Skull Society in 1910, and renewed in 1921 by the 1921 Skulls, is awarded at Commencement to that fraternity having the highest standing in scholarship for the preceding calendar year. The cup is to be awarded for eleven years, 1921 to 1931 inclusive, and the fraternity to which it is awarded the greatest number of times is to be its permanent owner.

FRESHMAN SCHOLARSHIP CUP, presented by the Junior Mask Society, is awarded at Commencement to the fraternity whose freshman delegation has the highest standing in scholarship for the first semester.

AGRICULTURAL CLUB MEMBERSHIP CUP is furnished by the Agricultural Club to be engraved each year with the numerals of that class which can show the best record of membership in the club.

THE CHARLES RICE CUP, presented by the Kappa Sigma Fraternity in honor of the late Charles Anthony Rice who was killed in service, is held for one year by the team winning the Intra-Mural Track Championship.

UNIVERSITY OF MAINE HONORARY SOCIETY SCHOLARSHIP, one hundred dollars, is to be contributed pro rata by the individual members of the Senior Skulls, Junior Masks, and Sophomore Owls.

1. This scholarship is to be awarded jointly by the Athletic Board of the University of Maine and the faculty committee on Honors.

2. The scholarship is to be awarded to some needy student who in the opinion of the Athletic Board is the best athlete making his "M" during his freshman year, and who is eligible upon his return to college the following semester.

3. The award will be announced at Commencement and the scholarship paid to the winner upon his return to college in the following September.

## ADMISSION

GENERAL REQUIREMENTS.—Candidates for admission should apply to the Registrar for an application card. They must present satisfactory certificates of fitness, or pass the required examinations, and make a cash deposit covering the bills of one semester. The university admits men and women, both residents of Maine and non-residents.

ADMISSION TO ADVANCED STANDING.—Candidates for advanced standing are examined in the preparatory studies, and in those previously pursued by the classes they wish to enter, or in other equivalent studies. Certificates from approved schools are accepted for the preparatory work, but certificates are not accepted for any part of the college work, unless

such work has been done in a college. Students transferring from another college must present a letter of honorable dismissal.

**SPECIAL STUDENTS.**—Persons 21 years of age, not candidates for a degree, may be admitted as special students if they give satisfactory evidence that they are prepared to take the desired subjects.

### ADMISSION TO SHORT COURSES

Candidates for admission to the two-year **SCHOOL COURSE IN AGRICULTURE** must be over fifteen years of age and prepared for advanced grammar or high school work.

### ADMISSION BY EXAMINATIONS

Entrance examinations are held at Orono, beginning four days before the opening of the fall semester, and on Wednesday, Thursday, Friday, and Saturday preceding Commencement. To save expense to candidates, examination papers will be sent to any satisfactory person who will consent to conduct examinations on the days appointed in June. If possible, these examinations should be in charge of the principal of the school. Papers will not be sent at any other time. The questions are to be submitted under the usual restrictions of a written examination, and the answers returned to the university immediately, accompanied by the endorsement of the examiner. The examination must be given on the days appointed in the schedule. Applications for such examinations must be made out on blanks to be obtained from the Registrar. Candidates for admission by examination, particularly those examined at Orono in September, should present statements from their school principals regarding their fitness to take the examinations and to undertake college work.

The examinations given by the College Entrance Examination Board will be accepted by the university. These examinations will be held during the week June 19-24, 1922. All applications for these examinations must be addressed to the Secretary of the College Entrance Examination Board, Post Office Sub-Station 84, New York, N. Y., and must be made upon a blank form to be obtained from the Secretary of the Board upon application. Applications must be made before May 31 and must be accompanied by the examination fee of \$6.00.

A candidate who wishes to be examined on part of his work in advance of the year in which he proposes to enter the university may receive credit for such examination, provided he has completed not less than one-half of his preparatory work. Examinations on subjects which are to be continued in college should not be taken more than one year in advance.

ADMISSION OF GRADUATES FROM CLASS A SCHOOLS IN MAINE

Graduates from Maine high schools and academies placed by the State Superintendent of Schools in Class A may be admitted upon their school records, provided they have pursued a course of study including all the subjects required for admission to the curriculum that they propose to follow and a sufficient number of the elective subjects to make a total of fourteen and a half units.

The school record of the candidates must be certified by the principal, upon blanks furnished by the university, and should be submitted before August 1.

ADMISSION BY CERTIFICATE FROM SCHOOLS OUTSIDE OF MAINE

Principals of schools situated outside of Maine who desire the certificate privilege must make application to the Dean of the University, and must furnish satisfactory evidence that the course of study in the school meets the requirements for admission. Blank forms for this purpose will be supplied on request.

Certificates will not be accepted for non-graduates except in unusual cases, and then only provided the candidate is expressly recommended for admission by the principal of the high school from which he comes. Certificates must be made out on blanks furnished by the university.

Certificates issued by the Regents of the University of the State of New York are accepted for any of the subjects in which we give admission credit and which are certified as having been passed with a satisfactory grade.

REQUIRED SUBJECTS

COLLEGE OF ARTS AND SCIENCES

English .....	3	units
Foreign languages (four years in one or two in each of two) .....	4	"
History .....	1	"
Mathematics (Algebra and Plane Geometry).....	2	"
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Total .....	10	units

COLLEGE OF AGRICULTURE

English .....	3	units
*Algebra .....	1	"
*Plane Geometry.....	1	"
Science (including laboratory note-book).....	1	"
History .....	1	"
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Total .....	7	units

\*For admission to the Home Economics curriculum, two units in mathematics acceptable to the Committee on Admission are required.

## COLLEGE OF TECHNOLOGY

English .....	3	units
One foreign language.....	2	"
Algebra .....	2	"
Plane and Solid Geometry.....	1½	"
History .....	1	"
Science .....	1	"
		<hr/>
Total .....	10½	units



The required units and the units that may be accepted in various subjects in the respective colleges are shown in tabular form.

SUBJECTS	Units required and units accepted in the several colleges							
	Units Accepted		Arts and Sciences		Agriculture		Technology	
	Min.	Max.	Req.	Acc.	Req.	Acc.	Req.	Acc.
English	3	3	3	3	3	3	3	3
French	*2	4	Four units in one language or two in each of two	2, 3, or 4		1, 2, 3, or 4	Two units in one language	1, 2, 3, or 4
German	2	4		2, 3, or 4		1, 2, 3, or 4		1, 2, 3, or 4
Greek	2	3		2 or 3		1, 2, or 3		1, 2, or 3
Latin	2	4		2, 3, or 4		1, 2, 3, or 4		1, 2, 3, or 4
Spanish	2	3		2 or 3		1, 2, or 3		1, 2, or 3
Algebra (Elem.)	1	**2	1	2	\$1	2	2	2
Plane geometry	1	1	1	1		1	1	1
Solid geometry	$\frac{1}{2}$	$\frac{1}{2}$		$\frac{1}{2}$	\$1	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Trigonometry	$\frac{1}{2}$	$\frac{1}{2}$		$\frac{1}{2}$		$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Algebra (Adv.)	$\frac{1}{2}$	$\frac{1}{2}$		$\frac{1}{2}$		$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
History	1	4	1	1, 2, 3, or 4	1	1, 2, 3, or 4	1	1, 2, 3, or 4
Civics	$\frac{1}{2}$	1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1
Economics	$\frac{1}{2}$	1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1
Biology	†1	1		1	One unit in Science	1	One unit in Science	1
Botany	†1	1		1		1		1
Chemistry	†1	2		1 or 2		1 or 2		1 or 2
Physics	†1	2		1 or 2		1 or 2		1 or 2
Physiography	$\frac{1}{2}$	1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1
Physiology	$\frac{1}{2}$	1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1
Zoology	†1	1		1		1		1
Agriculture	1	4		Not over two units in all of these		Not over four units in all of these		Not over four units in all of these
Domestic Science and Art	1	4						
Drawing	† $\frac{1}{2}$	2						
Manual Training	† $\frac{1}{2}$	2						
Commercial Subjects	$\frac{1}{2}$	4						
Music	$\frac{1}{2}$	1		$\frac{1}{2}$ or 1				
Bible Study	$\frac{1}{2}$	1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1



\*Candidates for Technology who meet the requirement in one language may have credit for a single year of another language.

\*\*To receive two units credit in elementary algebra, the candidate must have two full years including senior review.

†The work in these subjects must include laboratory work with notebook, as specified in the detailed statement.

‡Credit for these subjects and for bookkeeping and typewriting is at the rate of one-half unit for a subject taken five forty-five minute periods per week for a year.

§See foot-note on bottom of page 40.

## REQUIREMENTS IN DETAIL

### Languages

**ENGLISH.**—The entrance examination in English presupposes courses in composition and English literature pursued in the high school during four years. Prospective students are warned against attempting to prepare the required work in less time. Progress in composition particularly is of slow growth and requires almost daily cultivation during a long period of time. Books, to be thoroly enjoyed and appreciated, should be read at leisure and under favorable circumstances.

**Rhetoric.**—Candidates are expected to have had practice in composition for at least three days a week during the whole four years of the high school, and to have included in the latter part of their course such work in the elements of rhetoric as, for example, is contained in Carpenter's Rhetoric and Composition.

**Grammar.**—The examination will include questions on the syntax of sentences, and on general grammatical principles.

**Weight of Composition.**—The examination is mainly designed to test the candidate's ability to express his thought correctly and clearly. It is quite possible to answer all questions on the literature correctly, and yet fail on the examination as a whole because of crude and ungrammatical English. Prospective candidates are advised to give especial attention to spelling, punctuation, grammatical correctness, idiomatic words and phrases, sentences and paragraph formation.

**Subjects.**—Subjects for short compositions will be taken from a prescribed list of books; also from the candidate's general knowledge and experience.

The prescribed books are those adopted by the Conference on Uniform Entrance Requirements. There is a list for general reading and a list for study. They will be furnished upon application to the Registrar.

**FRENCH.**—The admission requirements in elementary and intermediate French are those recommended by the Modern Language Association of America.

I. *Elementary French*.—At the end of the second year the pupil should be able to pronounce French accurately, to read at sight easy French prose, to put into French simple English sentences taken from the language of everyday life or based upon a portion of the French text read, and to answer questions on the rudiments of the grammar as defined below.

The first year's work should comprise: (1) careful drill in pronunciation; (2) the rudiments of grammar, including the inflection of the regular and the more common irregular verbs, the plural of nouns, the pronouns, common adverbs, prepositions, and conjunctions; order of words in the sentences, and elementary rules of syntax; (3) abundant easy exercises, designed not only to fix in memory the forms and principles of grammar, but also to cultivate readiness in reproducing natural forms of expression; (4) the reading of 100 to 175 duodecimo pages of graduated texts, with constant practice in translating into French easy variations of the sentences read (the teacher giving the English), and in reproducing from memory sentences previously read; (5) writing French from dictation.

The second year's work should comprise: (1) the reading of 250 to 400 pages of easy modern prose in the form of stories, plays, or historical or biographical sketches; (2) constant practice, as in the previous year, in translating into French easy variations upon the texts read; (3) frequent abstracts, sometimes oral and sometimes written, of portions of the text already read; (4) writing French from dictation; (5) continued drill upon the rudiments of grammar, with constant application in the construction of sentences; (6) mastery of the forms and use of pronouns, pronominal adjectives, of all but the rare irregular verb forms, and of the simpler uses of the conditional and subjunctive.

Suitable texts for the second year are: About, *le Roi des montagnes*; Bruno, *le Tour de la France*; Daudet, *Easier Short Tales*; De la Bédollière, *la Mère Michel et son chat*; Erckmann-Chatrian, *Novels*; Foa, *Contes biographiques* and *le Petit Robinson de Paris*; Foncin, *le Pays de France*; Labiche et Martin, *la Poudre aux yeux* and *le Voyage de M. Perrichon*; Legouv   et Labiche, *la Cigale chez les fourmis*; Malot, *Sans famille*; Mair  t, *la T  che du petit Pierre*; M  rim  e, *Colomba*; Extracts from Michelet; Sarcey, *le Si  ge de Paris*; Verne's *Stories*.

II. *Intermediate French*.—At the end of the third year the pupil should be able to read at sight ordinary French prose or simple poetry, to translate into French a connected passage of English based on the text read, and to answer questions involving a more thoro knowledge of syntax than is expected in the elementary course.

This should comprise the reading of 400 to 600 pages of French of ordinary difficulty, a portion to be the dramatic form; constant practice in giving French paraphrase, abstracts, or reproductions from memory

of selected portions of the matter read; the study of a grammar of moderate proportions; writing from dictation.

Suitable texts are: About, Novels; Augier et Sandeau, *le Gendre de M. Poirier*; Béranger, Poems; Corneille, *le Cid* and *Horace*; Coppée, Poems; Daudet, *la Belle Nivernaise*; La Brète, *Mon oncle et mon curé*; Madame de Sévigné, Letters; Victor Hugo, *Hernani* and *la Chute*; Labiche, Plays; Loti, *Pêcheur d'Islande*; Mignet, Historical Writings; Racine, *Andromaque* and *Esther*; George Sand, Novels; Sandeau, *Mademoiselle de la Seiglière*; Scribe, Plays; Thierry, *Récits*; Vigny, *la Canne de jonc*; Voltaire, Historical Writings.

At the end of the fourth year the pupils should be able to read at sight, with the help of a vocabulary of special or technical expressions, difficult French not earlier than that of the seventeenth century; to write in French a short essay on some simple subject connected with the works read; to put into French a passage of easy English prose, and to carry on a simple conversation in French.

This should comprise the reading of from 600 to 1,000 pages of standard French, classical and modern, only difficult passages being explained in the class; the writing of numerous short themes in French; the study of syntax.

Suitable reading matter will be: Beaumarchais, *le Barbier de Séville*; Corneille, Dramas; Dumas père, Prose Writings; Dumas fils, *la Question d'argent*; Victor Hugo, *Ruy Blas*, Lyrics, and Novels; La Fontaine, *Fables*; Larmartine, *Grazielle*; Marivaux, Plays; Molière, Plays; Musset, Plays and Poems; Pellissier, *le Mouvement littéraire au XIX siècle*; Renan, *Souvenirs d'enfance et de jeunesse*; Rousseau, Writings; Sainte-Beuve, Essays; Selections from Zola, Maupassant, and Balzac.

The examination of the College Entrance Certificate Board in elementary French will be accepted for two units, and that in intermediate French for one additional unit.

GERMAN.—The admission requirements in elementary and advanced German are those recommended by the Modern Language Association of America.

I. *Elementary German*.—The first year's work should comprise: (1) careful drill upon pronunciation; (2) memorizing and frequent repetition of easy colloquial sentences; (3) drill upon the rudiments of grammar, that is, upon the inflection of the articles, of such nouns as belong to the language of every-day life, of adjectives, pronouns, weak verbs, and the more unusual strong verbs; also in the use of the more common prepositions, the simpler uses of the modal auxiliaries, and the elementary rules of syntax and word order; (4) abundant easy exercises designed not only to fix in mind the forms and principles of grammar but also to cultivate readiness in reproducing natural forms of expression; (5) the reading of 75 to 100 pages of graduated texts from a reader, with con-

stant practice in translating into German easy variations upon sentences selected from the reading lesson (the teacher giving the English), and in reproducing from memory sentences previously read.

The second year's work should comprise: (1) the reading of 150 to 200 pages of literature in the form of easy stories and plays; (2) accompanying practice, as before, in translating into German easy variations upon the matter read, also in the off-hand reproductions, sometimes orally and sometimes in writing of the substance of short and easy selected passages; (3) continued drill in the rudiments of grammar, to enable the pupil first, to use his knowledge with facility in forming sentences, and secondly, to state his knowledge correctly in the technical language of grammar.

Stories suitable for the elementary course can be selected from the following list: Anderson, *Märchen* and *Bilderbuch ohne Bilder*; Baumbach, *Die Nonna* and *Der Schwiegersohn*; Gerstäcker, *Germelshausen*; Heyse, *L'Arrabbiata*, *Das Mädchen von Treppi*, and *Anfang und Ende*; Hillern, *Höher als die Kirche*; Jensen, *Die braune Erica*; Leander, *Träumereien* and *Kleine Geschichten*; Seidel, *Märchen*; Stokl, *Unter dem Christbaum*; Storm, *Immensee* and *Geschichten aus der Tonne*; Zschokke, *Der zerbrochene Krug*.

The best shorter plays available are: Benedix, *Der Process*, *Der Weiberfeind*, and *Günstige Vorzeichen*; Elz, *Er ist nicht eifersüchtig*; Wichert, *An der Majorsecke*; Wilhelmi, *Einer muss heiraten*. Only one of these plays needs be read and the narrative style should predominate. A good selection of reading matter for the second year would be Andersen, *Mächen* or *Bilderbuch*, or Leander, *Träumereien*, to the extent of about forty pages. Afterward, such a story as *Das kalte Herz*, or *Der zerbrochene Krug*; then *Höher als die Kirche*, or *Immensee*; next a good story by Heyse, Baumbach, or Seidel, last *Der Prozess*.

II. *Advanced German*.—The work should comprise, in addition to the elementary course, the reading of about 400 pages of moderately difficult prose and poetry, with constant practice in giving, sometimes orally and sometimes in writing, paraphrases, abstracts, or reproductions from memory of selected portions of the matter read, also grammatical drill in the less usual strong verbs, the use of articles, cases, auxiliaries of all kinds, tenses and modes (with especial reference to the infinitive and subjunctive), and likewise in word order and word formation. To do this work two school years are usually required.

Suitable reading matter for the third year may be selected from such work as the following: Ebner-Eschenbach, *Die Frierherren von Gemperlein*; Freytag, *Die Journalisten* and *Bilder aus der deutschen Vergangenheit*, *Karl der Grosse*, *Aus den Kreuzzügen*, *Doktor Luther*, *Aus dem Staat Friedrichs des Grossen*; Fouqué, *Undine*; Gerstäcker, *Irrfahrten*; Goethe, *Hermann und Dorothea* and *Iphigenie*; Heine's Poems and

*Reisebilder*; Hoffman, *Historische Erzählungen*; Lessing, *Minna von Barnhelm*; Meyer, *Gustav Adolfs Page*; Moser, *Der Bibliothekar*; Riehl, *Novellen*, *Burg Neideck*, *Der Fluch der Schönheit*, *Der Stumme Ratsherr*, *Das Spielmannskind*; Rosegger, *Waldheimat*; Schiller, *Der Neffe als Onkel*, *Der Geistersehr*, *Wilhelm Tell*, *Die Jungfrau von Orleans*, *Das Lied von der Glocke*, *Balladen*; Scheffel, *Der Trompeter von Säckingen*; Uhland's Poems; *Wildenbruch*, *Das edle Blut*. A good selection would be: (1) one of Riehl's novelettes; (2) one of Freytag's "pictures;" (3) part of *Undine* or *Der Geisterseher*; (4) a short course of reading in lyrics and ballads; (5) a classical play by Schiller, Lessing, or Goethe.

The examinations of the College Entrance Certificate Board in elementary German will be accepted for two units, and that in advanced German for one additional unit.

SPANISH.—The admission requirements in Spanish are those of the College Entrance Examination Board.

*Elementary Spanish*.—At the end of the second year of the elementary course the pupil should be able to pronounce Spanish accurately, to read at sight easy Spanish prose, to put into Spanish simple English sentences taken from the language of everyday life or based upon a portion of the Spanish text read, and to answer questions on the rudiments of the grammar, as indicated below.

The first year's work should comprise: (1) Careful drill in pronunciation; (2) the rudiments of grammar, including the conjugation of the regular and the more common irregular verbs, the inflection of nouns, adjectives, and pronouns, and the elementary rules of syntax; (3) exercises containing illustrations of the principles of grammar; (4) the careful reading and accurate rendering into good English of about 100 pages of easy prose and verse, with translation into Spanish of easy variations of the sentences read; (5) writing Spanish from dictation.

The second year's work should comprise: (1) The reading of about 200 pages of prose and verse; (2) practice in translating Spanish into English, and English variations of the text into Spanish; (3) continued study of the elements of grammar and syntax; (4) mastery of all but the rare irregular verb forms and of the simpler uses of the modes and the tenses; (5) writing Spanish from dictation; (6) memorizing of easy short poems.

The emphasis should be placed on careful thoro work with much repetition rather than upon rapid reading. The reading should be selected from the following: A collection of easy short stories and lyrics, carefully graded; Juan Valera, *El pájaro verde*; Pérez Escrich *Fortuna*; Ramos Carrión and Vital Aza, *Zaragüeta*; Palacio Valdés, *José*; Pedro de Alarcón, *El Capitán Veneno*; Selgas, *La mariposa blanca*; the selected short stories of Pedro de Alarcón or Antonio de Trueba.



LATIN.—The entrance examination in Latin will consist of four parts as follows:

1. An examination on the elements of Latin grammar and easy translations.

2a. An examination in sight translation of Latin prose suited to test the ability of a candidate who has read from Cæsar (Gallic War and Civil War) and Nepos (Lives) an amount not less than Cæsar, Gallic War, I-IV.

b. Questions on the ordinary forms and constructions of Latin grammar and the translation of easy English sentences into Latin.

\*3a. An examination on Cicero, speeches for the Manilian Law and for Archias and Marcellus, and the third speech against Catiline, with questions on subject matter, literary and historical allusions, and grammar.

b. An examination in sight translation of Latin prose adapted to candidates who have read from Cicero (speeches, letters, and *De Senectute*) and Sallust (*Catiline* and *Jugurthine War*) an amount not less than Cicero, speeches against Catiline I-IV, for the Manilian Law, and for Archias.

c. A test in writing simple Latin prose which shall demand a thorough knowledge of all regular inflections, all common irregular forms, and the ordinary syntax and vocabulary of the prose authors read in school.

\*4a. An examination on Vergil, *Æneid*, II, III, and VI with questions on subject matter, literary and historical allusions, and prosody.

b. An examination in sight translation of Latin poetry adapted to candidates who have read from Vergil (*Bucolics*, *Georgics*, and *Æneid*) and Ovid (*Metamorphoses*, *Fasti*, and *Tristia*) an amount not less than Vergil, *Æneid*, I-VI.

A candidate may obtain separate credit for each part except in the College of Arts and Sciences. Each represents a year's work and entrance credit for one unit.

In parts 3 and 4 candidates must deal satisfactorily with both the sight and set passages, or they will not be given credit for either.

GREEK.—The grammar, including prosody; Xenophon's *Anabasis*, books I-IV; Homer's *Iliad*, books I-III; the sight translation of easy passages from Xenophon; the translation into Greek of easy passages based on the required books of the *Anabasis*. For the last a vocabulary of less usual words will be furnished. Equivalent readings will be accepted in place of those prescribed.

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\*After June, 1922, the set passages for translation will be changed.



## History

UNITED STATES HISTORY.—A year's work as given in the average high school.

ANCIENT HISTORY.—A year's work as given in the average high school.

ENGLISH HISTORY.—A year's work as given in the average high school.

MEDIEVAL AND MODERN.—A year's work as given in the average high school.

## Mathematics

ALGEBRA.—The four fundamental operations for rational algebraic expressions; factoring, determination of highest common factor and least common multiple by factoring; fractions, including complex fractions, and ratio and proportion; linear equations, both numerical and literal, containing one or more unknown quantities; problems depending on linear equations; radicals, including the extraction of the square root of polynomials and of numbers; exponents, including fractional and negative; quadratic equations, both numerical and literal; simple cases of equations with one or more unknown quantities, that may be solved by the methods of linear or quadratic equations; problems depending on quadratic equations; the binomial theorem for positive integral exponents; the formulas for the  $n$ th term and the sum of the terms of arithmetical and geometrical progressions, with applications.

It is assumed that pupils are required thruout the course to solve numerous problems which involve putting questions into equations. Some of the problems should be chosen from mensuration, from physics, and from commercial life. The use of graphical methods and illustrations, particularly in connection with the solution of equations, is also expected.

PLANE GEOMETRY.—The usual theorems and constructions of good text-books, including the general properties of plane rectilinear figures; the circle and the measurement of angles; similar polygons; areas, regular polygons and the measurement of the circle.

SOLID GEOMETRY.—The usual theorems and constructions of good text-books, including the relations of planes and lines in space; the properties and measurement of prisms, pyramids, cylinders, and cones; the sphere and the spherical triangle.

TRIGONOMETRY.—Definitions and relations of the six trigonometric functions as ratios; circular measurement of angles; proofs of principal formulas; in particular for the sine, cosine, and tangent of the sum and the difference of two angles, of the double angle and the half angle; the product expressions for the sum or the difference of two sines or of two cosines, etc.; the transformation of trigonometric expressions by means of these formulas; solution of trigonometric equations of a simple

character; theory and use of logarithms (without the introduction of work involving infinite series); the solution of right and oblique triangles, and practical applications.

ADVANCED ALGEBRA.—Permutatons and combinations, limited to simple cases; complex numbers, with graphical representation of sums and differences; determinants, chiefly of the second, third, and fourth orders, including the use of minors and the solution of linear equations; numerical equations of higher degree, and so much of the theory of equations, with graphical methods, as is necessary for their treatment, including Descartes's rule of signs and Horner's method, but not Sturm's functions or multiple roots.

### Sciences

\*BIOLOGY.—This may consist of a continuous course for one year dealing with the problems of general biology, including the study of the structure, functions, and habits of both plants and animals; a course for one year in botany alone; a course for one year in zoology alone; or a course for one-half year in human physiology. The human physiology may be arranged to form a part of the general biology, or of the zoology; but in such cases it must be treated as an integral part of the subject under consideration.

\*CHEMISTRY.—The necessary ground is covered by the following text-books: Brownlee and others, Hessler and Smith, McPherson and Henderson, Newell.

PHYSICAL GEOGRAPHY (PHYSIOGRAPHY).—A satisfactory preparation may be obtained from either Appleton's or Tarr's Physical Geography.

\*PHYSICS.—The work usually covered in one year in a good fitting school.

The requirements in botany and zoology are the same as those of the College Entrance Examination Board, and are outlined in the syllabus of the board. The note-book should include properly labeled drawings, and descriptions of experiments, representing as much of the work in this syllabus as may be practicable, and should be the record of a year's laboratory work in the subject. The making of an herbarium is optional.

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\*The work in these sciences must include certified note-books exhibiting the results of experimental work performed by the student. In physics forty exercises are required and in chemistry fifty exercises. These note-books should be presented at the examination. In the case of students certified in the sciences, the principal is expected to pass upon the quality of the note-book rather than send them to the university.

## Organization of the University

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The university is divided for purposes of administration into the Colleges of Agriculture, Arts and Sciences, and Technology, and the Maine Agricultural Experiment Station. The policies of the university as a unit are determined by the Board of Trustees and the general faculty, but each division regulates those affairs which concern itself alone.

### COLLEGE OF AGRICULTURE

Curricula in Agronomy, Agricultural Education, Animal Husbandry, Biology, Dairy Husbandry, Forestry, Home Economics, Horticulture, and Poultry Husbandry.

School Course in Agriculture (two years).

Short courses; Farmers' Week; Correspondence and Lecture Courses; Demonstration Work; Extension Schools.

### COLLEGE OF ARTS AND SCIENCES

Major subjects may be selected in Biology, Chemistry, Economics and Sociology, Education, English, French, History, Latin, Mathematics and Astronomy, Philosophy, Physics, and Spanish and Italian.

### COLLEGE OF TECHNOLOGY

Curricula in Chemical Engineering, Chemistry, Civil Engineering, Electrical Engineering, and Mechanical Engineering.

### MAINE AGRICULTURAL EXPERIMENT STATION

Offices and principal laboratories at Orono; Highmoor Farm at Monmouth; Aroostook Farm at Presque Isle.

GRADUATE COURSES leading to the Master's degree have been organized. These courses are administered by the Committee on Graduate Study.

A SUMMER TERM of six weeks is maintained by the university.

The college year is divided equally into a fall semester and a spring semester. The minimum regular work for a semester in the College of Arts and Sciences is fourteen hours a week. In the College of Agriculture and the College of Technology the minimum is seventeen hours a week. Thirty hours in the major subject represent the minimum requirement for a degree.

## College of Agriculture

### FACULTY OF INSTRUCTION

- LEON STEPHEN MERRILL, M.D., *Dean and Director of Agricultural Extension Service*
- LUCIUS HERBERT MERRILL, Sc.D., *Professor of Biological and Agricultural Chemistry*
- FREMONT LINCOLN RUSSELL, B.S., V.S., *Professor of Bacteriology and Veterinary Science*
- MINTIN ASBURY CHRYSLER, Ph.D., *Professor of Biology*
- JOHN MANVERS BRISCOE, M.F., *Professor of Forestry*
- GEORGE EDWARD SIMMONS, M.S., *Professor of Agronomy*
- LAMERT SEYMOUR CORBETT, M.S., *Professor of Animal Industry*
- FRANCES ROWLAND FREEMAN, M.S., *Professor of Home Economics*
- HERBERT STAPLES HILL, A.B., *Professor of Agricultural Education*
- HERMAN PITTEE SWEETSER, B.S., *Professor of Horticulture*
- IRVING HILL BLAKE, A.M., *Associate Professor of Biology*
- CHARLES HOWARD BATCHELDER, A.B., M.S., *Associate Professor of Zoology*
- HARRY WOODBURY SMITH, B.S., *Assistant Professor of Biological and Agricultural Chemistry*
- LAURA ANDERSON, B.S., *Assistant Professor of Home Economics*
- LLEWELLYN MORSE DORSEY, B.S., *Assistant Professor of Animal Husbandry*
- ROY FRANK THOMAS, B.S., *Assistant Professor of Agricultural Education*
- BENJAMIN COE HELMICK, M.S., *Assistant Professor of Agronomy*
- ESTHER MCGINNIS, B.Sc., *Assistant Professor of Home Economics*
- CHAUNCEY WALLACE LORD CHAPMAN, M.S., *Instructor in Forestry*
- JOHN ELTON LODEWICK, A.B., *Instructor in Biology*
- LEIGH PHILBROOK GARDNER, B.S., *Instructor in Animal Industry*
- GERTRUDE DEVITT PEABODY, B.S., *Instructor in Home Economics*
- HAROLD CLAYTON SWIFT, B.S., *Instructor in Agronomy*
- FLORENCE LIBBY CHANDLER, B.S., *Instructor in Bacteriology and Veterinary Science*
- WILLIAM EUGENE REYNOLDS, B.S., *Instructor in Biology*
- WALTER WENTWORTH WIGGIN, B.S., *Instructor in Horticulture*

### GENERAL INFORMATION

The College of Agriculture comprises the departments of Agricultural Education, Agronomy, Animal Industry, Biological and Agricultural Chemistry, Biology, Farm Management and Agricultural Engineering.

ing, Forestry, Home Economics, Horticulture, Veterinary Science and Bacteriology, and Agricultural Extension. The aim of this college is to train young men for service as farmers, teachers of agriculture and the allied sciences in schools and colleges, investigators in agricultural experiment stations, and foresters; and to prepare young women to become teachers of home economics and to comprehend the problems of administration in the home and in public institutions. On entering either a four-year curriculum or the two-year School Course in Agriculture a student is required to fill out a practical experience blank. Those who have not had experience in general farming are required to work during at least one summer vacation on some farm approved by the faculty of the college.

The college curricula are designed for those who wish to follow general farming, animal husbandry, dairy husbandry, poultry husbandry, horticulture, home economics, chemistry as related to experiment station work, biological chemistry, bacteriology and veterinary science, biology, farm management, and forestry either as a business or as a profession.

The courses of instruction are organized as follows:

#### 1. REGULAR CURRICULA

The four-year general curricula in Agricultural Education.

Agronomy, Animal Husbandry, Biology, Dairy Husbandry, Forestry, Home Economics, Horticulture, and Poultry Husbandry

The two-year School Course in Agriculture

#### 2. SHORT COURSES

The short winter courses in General Agriculture, Dairying, Horticulture, and Poultry Management

Farmers' Week

#### 3. EXTENSION COURSES

The correspondence courses

The lecture courses

Movable or extension schools

### CURRICULA IN AGRICULTURE

Certain studies are fundamental to all work in agricultural lines. As many as possible of these subjects are offered in the first two years, during which the student is necessarily given no choice of subjects. By the beginning of the junior year each student must decide whether he is to specialize in Agricultural Education, Agronomy, Animal Husbandry, Dairy Husbandry, Poultry Husbandry, Horticulture, or Biology. To specialize in any one of these lines, he must during his junior and senior years take the studies given in the schedules which follow.

Students in agriculture who contemplate entering experiment station work should elect the course offered by the department of agricultural chemistry covering the qualitative and quantitative chemical analysis of fodders, fertilizers, and dairy products. They should also elect a preparatory course in quantitative chemical analysis.

The elective subjects are selected with the advice of the major instructor.

Before receiving their degrees candidates must satisfy the faculty that they are familiar with the methods of conducting operations incident to general farming. This does not apply to students who major in Biology, Forestry, and Home Economics.

One of the following curricula, embracing 150 college hours each, is required for the students pursuing a four-year curriculum in the College of Agriculture. On completion of such a curriculum, the student will receive the degree of Bachelor of Science (B.S.).

### Curriculum for the First Two Years for All Students Taking Four-Year Curricula in Agriculture

#### FRESHMAN YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Agronomy 11, 2 †2.....	3	Animal Industry 2.....	2
Chemistry 1 or 3, 2 †4.....	4	Animal Industry 4, †2.....	1
Drawing 9, *3.....	1	Botany 2, 2 †4.....	4
English 1.....	2	Chemistry 2 or 4, 2 †4.....	4
Military 1, *3.....	1	Drawing 10, *3.....	1
Physical Training 1.....	½	English 2.....	2
Poultry Husbandry 1, 2 †2....	3	Military 2, *3.....	1
Public Speaking 1a.....	1	Physical Training 2.....	1
Zoology 1, 2 †4.....	4	Poultry Husbandry 2, 1 †2..	2
		Public Speaking 2a.....	1



## SOPHOMORE YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Agronomy 1, 2 *3.....	3	Agronomy 12, †4.....	2
Animal Industry 3.....	2	Biochemistry 2, 3 †4.....	5
Animal Industry 5, †2.....	1	Biology 8, 2 †4.....	4
Biochemistry 1.....	2	Horticulture 2, 2 *3.....	3
Biochemistry 9, 2 †2.....	3	Mathematics 12.....	2
Biology 7.....	2	Military 2, *3.....	1
Mathematics 11.....	3	Options:	
Military 1, *3.....	1	Agricultural Chemistry 6..	2
Options:		or	
Animal Industry 7, 2 †4....	4	Horticulture 20, 2 †2.....	3
or			
Horticulture 1, 2 †2.....	3		

## Curriculum for Students Specializing in Agricultural Education

## JUNIOR YEAR

Agronomy 13, 1 †2.....	2	Agricultural Chemistry 6... 2
Animal Industry 7, 2 †4.....	4	or
or		Horticulture 20, 2 †2.....
Horticulture 1, 2 †2.....	3	Animal Industry 6.....
Bacteriology 1, †6.....	3	Education 78.....
Bacteriology 3.....	2	Farm Management 72, 2 *3..
Education 55.....	3	Forestry 2.....
English 5.....	2	Mechanical Engineering 6 *3
Horticulture 9, 2 †2.....	3	Veterinary Science 14.....
		Veterinary Science 16.....

## SENIOR YEAR

Agricultural Education 3, 2 †2	3	Agricultural Education 4...	4
Agronomy 3 .....	2	Agricultural Education 6...	2
Farm Management 71, 2 *3...	3	Farm Management 2, †4...	2
Farm Management 73, 2 †2...	3	Farm Management 74, 2 *3.	3
Mechanical Engineering 5, *3..	1	Rural Sociology 82.....	2
Elective .....	7	Elective .....	3

## Curriculum for Students Specializing in Agronomy

## JUNIOR YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Agronomy 15, 1 †2.....	2	*Agricultural Chemistry 6..	2
*Animal Industry 7, 2 †4.....	4	Agronomy 14, 1 †2.....	2
Bacteriology 1, †6.....	3	Agronomy 16, 1 †2.....	2
Bacteriology 3.....	2	Agronomy 18.....	2
Biology 9, 2 †6.....	5	Animal Industry 6.....	2
English 5 .....	2	Biology 10, 2 †6.....	5
Elective .....	2	Elective .....	5

## SENIOR YEAR

Agronomy 3.....	2	Farm Management 2, †4....	2
Agronomy 13, 1 †2.....	2	Farm Management 72, 2 *3..	3
Farm Management 71, 2 *3....	3	Farm Management 74, 2 *3..	3
Elective .....	10	Elective .....	9

## Curriculum for Students Specializing in Animal Industry

## ANIMAL HUSBANDRY

## JUNIOR YEAR

*Animal Industry 7, 2 †4.....	4	*Agricultural Chemistry 6..	2
Bacteriology 1, †6.....	3	Animal Industry 6.....	2
Bacteriology 3.....	2	Animal Industry 52, †2.....	1
Biology 51, 2 †4.....	4	Bacteriology 52, 1 †4.....	3
English 5 .....	2	Biology 52, 2 †4.....	4
Elective .....	4	Veterinary Science 14.....	3
		Veterinary Science 16.....	1
		Elective .....	3

## SENIOR YEAR

Agronomy 3.....	2	Animal Industry 54.....	2
Animal Industry 53.....	2	Farm Management 2, †4....	2
Farm Management 71, 2 *3....	3	Farm Management 72, 2 *3..	3
Veterinary Science 15.....	2	Elective .....	11
Veterinary Science 17.....	1		
Veterinary Science 19.....	2		
Elective .....	6		

\*If not already taken in the sophomore year.

## DAIRY HUSBANDRY

## JUNIOR YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
*Animal Industry 7, 2 †4.....	4	*Agricultural Chemistry 6..	2
Bacteriology 1, †6.....	3	Animal Industry 6.....	2
Bacteriology 3.....	2	Animal Industry 8, 1 *6....	3
English 5.....	2	Bacteriology 52, 1 †4.....	3
Elective .....	8	Veterinary Science 14.....	3
		Veterinary Science 16.....	1
		Elective .....	6

## SENIOR YEAR

Agronomy 3.....	2	Bacteriology 54, †4 or †6..	2 or 3
Animal Industry 9, 2 *6.....	4	Farm Management 2, †4....	2
Animal Industry 51.....	3	Farm Management 72, 2 *3..	3
Farm Management 71, 2 *3....	3	Elective.....	10 or 9
Veterinary Science 15.....	2		
Veterinary Science 17.....	1		
Elective .....	3		

## POULTRY HUSBANDRY

## JUNIOR YEAR

*Animal Industry 7, 2 †4.....	4	*Agricultural Chemistry 6..	2
Bacteriology 1, †6.....	3	Animal Industry 6.....	2
Bacteriology 3.....	2	Biology 52, 2 †4.....	4
Biology 51, 2 †4.....	4	Poultry Husbandry 4.....	2
English 5.....	2	Elective .....	9
Poultry Husbandry 3, 1 †2....	2		
Elective .....	2		

## SENIOR YEAR

Agronomy 3.....	2	Farm Management 2, †4....	2
Farm Management 71, 2 *3..	3	Farm Management 72, 2 *3..	3
Poultry Husbandry 5.....	2	Poultry Husbandry 6, 3 †2..	4
Poultry Husbandry 7, 2 †2... 3		Veterinary Science 12.....	2
Elective .....	8	Elective .....	7

\*If not already taken in the sophomore year.

## Curriculum for Students Specializing in Horticulture

## JUNIOR YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Bacteriology 3.....	2	Agricultural Chemistry 6...	2
Biology 9, 2 †6.....	5	Animal Industry 6.....	2
English 5 .....	2	Bacteriology 2, †6.....	3
*Horticulture 1, 2 †2.....	3	Biology 10, 2 †6.....	5
**Horticulture 21, 2 †2.....	3	*Horticulture 20.....	3
Horticulture 9, 2 †2.....	3	Elective.....	7 or 6
Elective.....	1 or 4		

## SENIOR YEAR

Agronomy 3.....	2	Farm Management 2, †4....	2
Farm Management 71, 2 *3...	3	Horticulture 50.....	2
Horticulture 3, 2 †2.....	3	Horticulture 8, 2 †2.....	3
Horticulture 5, 2 †2.....	3	Horticulture 52.....	1
Horticulture 7, 2 †2.....	3	Elective .....	10
Horticulture 51.....	1		
Elective.....	3 or 6		

## Curriculum in Biology

## JUNIOR YEAR

Bacteriology 3.....	2	Bacteriology 2, †6.....	3
English 5 .....	2	English 10.....	2
Geology 5.....	3	Modern Language.....	2
Modern Language.....	3	Animal Embryology 52..	4
Plant Histology 61.....	4	or	
or		Plant Physiology 62.....	3
Vertebrate Morphology 51.]		Forest Pathology 66....	
Elective .....	3	or	4
		Elective .....	
		Elective .....	4

\*If not already taken in the sophomore year.

\*\*Must be taken following Horticulture 20.

## SENIOR YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Animal Physiology 53.....	4	Animal Embryology.....	4
or Plant Taxonomy		or	
and Morphology 63.....		Plant Physiology.....	
Biology Seminar.....	1	Animal Histology 54....	3 or 4
Thesis or Elective.....	3	or Forest Pathology 66	
Vertebrate Morphology 51.)	4	or Elective	
or		Biology Seminar.....	1
Plant Histology 61.....		Thesis or Elective.....	3
Elective .....	6½	Elective.....	6 or 7

## CURRICULUM IN FORESTRY

Only the four year undergraduate course is offered in Forestry. The curriculum for this course follows. It is arranged to meet the requirements of the National Committee of the Conference of Forest Schools, on Standardization of Instruction in Forestry. Completion of the curriculum leads to the degree of Bachelor of Science in Forestry. It will enable the graduate to qualify for technical and administrative positions in professional forestry work, and will admit to advanced standing in post-graduate schools of forestry of high standing, if further and more advanced work is desired.

It will also make a student eligible for the Civil Service examinations for the position of Forest Assistant in the United States Forest Service.

Owing to the wide field covered by the curriculum both in arts and sciences, as well as in technology, it offers an excellent basis for a broad and liberal education.

The first two years are given very largely to fundamental and auxiliary subjects, which are basic for a proper understanding of the more highly specialized work in technical forestry in the last two years.

Instruction in the department consists of lectures, recitations, laboratory and field work, the latter consuming a considerable portion of the scheduled time during the junior and senior years.

## FRESHMAN YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Chemistry 1 or 3, 2 †4.....	4	Botany 2, 2 †4.....	4
Drawing 1, *6.....	2	Chemistry 2 or 4, 2 †4.....	4
English 1.....	2	Drawing 2, *6.....	2
Forestry 1.....	2	English 2.....	2
Mathematics 11.....	3	Mathematics 2.....	2
Military 1, *3.....	1	Mathematics 12.....	2
Zoology 1, 2 †4.....	4	Military 2, *3.....	1
Physical Training.....	½	Physical Training.....	1

## SOPHOMORE YEAR

Agronomy 1, 2 *3.....	3	Biology 8, 2 †4.....	4
Biology 67, 2 †4.....	4	Biology 68, 2 †4.....	4
Civil Engineering 1 and 7....	3½	Civil Engineering 2.....	1
Economics 1b.....	2	Civil Engineering 4.....	1½
English 5.....	2	Economics 2b.....	2
Military 1, *3.....	1	English 10.....	2
Public Speaking 1a.....	1	Forestry 10.....	1
Elective .....	3	Military 2, *3.....	1
		Public Speaking 2a.....	1
		Elective .....	3

## JUNIOR YEAR

Biology 61, 2 †4.....	4	Biology 62, 2 †4.....	4
Civil Engineering 21.....	1	Civil Engineering 22.....	1
Civil Engineering 23.....	1	Civil Engineering 24.....	1
Civil Engineering 27.....	1	Forestry 4.....	1
Forestry 11.....	2	Forestry 6.....	2
Forestry 13, *6.....	2	Forestry 8, *6.....	2
Geology 5.....	3	Forestry 28.....	1
Horticulture 5, 2 †2.....	3	Physics 10.....	3
Elective .....	2	Elective .....	4

## SENIOR YEAR

Forestry 3.....	2	Biology 66, 2 †2.....	3
Forestry 5.....	1	Forestry 12.....	2
Forestry 9.....	1	Forestry 14, *6.....	2
Forestry 15.....	2	Forestry 16.....	2
Forestry 17, *6.....	2	Forestry 18, *6.....	2
Forestry 19.....	2	Forestry 20.....	2
Forestry 21, *6.....	2	Forestry 22.....	1
Elective .....	6	Elective .....	4



## CURRICULUM IN HOME ECONOMICS

This curriculum leads to the degree of Bachelor of Science (in Home Economics). In addition to the prescribed studies, elective courses are offered for those who plan to teach.

Students desiring to follow this curriculum must meet the regular university requirements.

Students taking courses 5, 6, 10, and 11 are required to wear in the laboratory white waists, washable ties, shoes with rubber heels, and white aprons with bibs. They must also be provided with small white hand towels and holders.

## FRESHMAN YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Chemistry 1 or 3.....	2	Chemistry 2 or 4.....	2
Chemistry 5 or 7, †4.....	2	Chemistry 6 or 8, †4.....	2
English 1.....	2	English 2.....	2
History 7.....	3	History 8.....	3
Home Economics 1, 2 †4.....	4	Home Economics 2, 2 †4....	4
Home Economics 3, 1 †2.....	2	Home Economics 4, 1 †4....	3
Home Economics 13, †4.....	2	Physical Training 2, †2....	1
Physical Training 1, †2.....	½		

## SOPHOMORE YEAR

Art 11.....	2	Art 12.....	2
Biochemistry 9, 2 †2.....	3	Food Analysis 8, †6.....	3
Physiology 5, 2 †4.....	4	Botany 2, 2 †4.....	4
English 3.....	3	English 4.....	3
Home Economics 5, 2 †4....	4	Home Economics 6, 2 †4....	4
Psychology 49a.....	3	Psychology 50.....	3
Physical Training 1, †2.....	½	Physical Training 2, †2....	1

## JUNIOR YEAR

Bacteriology 1, †6.....	3	Physics 8, 4 †2.....	5
Bacteriology 3.....	2	Home Economics 8, †6....	3
Biochemistry 7, 3 †4.....	5	Home Economics 10, 3 †4..	5
Home Economics 7, 2 †4....	4	Home Economics 14.....	3
Home Economics 9.....	3	Elective .....	3
Elective .....	3		

## SENIOR YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Home Economics 17, 1 †4.....	3	Home Economics 12.....	4
Sociology 55.....	3	Home Economics 18, 1 †4..	3
Economics 1b.....	2	Sociology 56 .....	3

Home Economics 21 or 22, \*9—3 credit hours required in either fall or spring semester.

Electives 16 credit hours for the year.

Students desiring to prepare for teaching under the Vocational Education requirements must complete 15 hours of education as follows: Education 51, 52, 77, 84, or 71, and 75 or 76; also Home Economics 16.

Students desiring to secure the Professional Secondary Certificate must complete 12 hours of education as follows: Education 51, 52, 77 and one of the following courses: Education 71, 84, 75 or 76.

### Special Courses in Agriculture and Home Economics

The Special Courses in Agriculture and Home Economics are designed for young men and women who cannot well spend four years in preparation, but who desire to secure special training in this line. No fixed schedule of studies is prescribed, but students may elect along the line of horticulture, dairying, poultry management, veterinary science, agricultural chemistry, bacteriology, farm management, general agriculture, or home economics.

Persons not candidates for a degree who desire to take special studies may be permitted to do so, if, upon examination, they give satisfactory evidence that they are prepared to pursue them. This privilege is intended for students of unusual maturity or previous advancement in particular subjects, and not for those who are incompetent to pursue a regular course. If they subsequently desire to become candidates for a degree, they will be required to meet all the entrance requirements.

The annual expenses for courses of one year or more are the same as those for students in the four-year curricula.

### Two-year School Course in Agriculture

This is a course designed to train young men and women who wish to become practical farmers, farm superintendents, dairymen, poultrymen, or gardeners, but who cannot devote time to high school or college training.

The same equipment is used as in the four-year curricula, but the work is of a more elementary nature. All the classes are separate and

distinct from the four-year classes, and in no case will college credit be allowed for work done in the School Course.

There are no entrance examinations required of those who desire to enter the School Course. Students over fifteen years of age who are prepared for advanced grammar or high school work are eligible for registration.

The practical side of this work is strongly emphasized, and since students are expected to be able to do work and handle men, those taking this course are required to spend the summer vacation between the first and second years in work either at the college or on some farm approved by the faculty.

On completion of the course a certificate is awarded those who have satisfactorily done the work.

## FIRST YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Animal Husbandry, 3 †2.....	4	Dairy Husbandry, 3 *3.....	4
Business Arithmetic and Farm Accounts.....	2	English .....	3
Forge Work, *3.....	1	Farm Botany.....	2
English .....	3	Carpentry, *3 .....	1
Farm Crops, 3 *3.....	4	Fruit Growing, 3 *3.....	4
Fruit Handling, 3 *3.....	4	Poultry Husbandry, 2 †2....	3
Poultry Husbandry, 2 †2.....	3	Soils and Fertilizers, 3 *3..	4

## SECOND YEAR

Animal Husbandry, 3 †2.....	4	Animal Husbandry, 3 †2....	4
English .....	2	English .....	2
Farm Chemistry .....	3	Farm Management, 3 *3....	4
Farm Crops.....	2	Forestry .....	2
Farm Engineering and Mechanics, 1 *3.....	2	Insects .....	2
Poultry Husbandry.....	2	Poultry Husbandry.....	2
Vegetable Gardening, 3 *3....	4	Small Fruit Culture and Plant Propagation, 3 *3... 4	
Veterinary Science.....	3	Veterinary Science.....	3

### Short Winter Courses in General Agriculture, Dairying. Horticulture, and Poultry Management

The short courses in general agriculture deal especially with farm crops. Special attention is given to the potato, corn, oat, and hay crops,—the preparation of seed bed, selection of seed, seeding, fertilization, culture, and harvesting. Such general subjects as drainage, maintenance of

soil fertility, rotation of crops, control of weeds, etc., are considered. Potato, corn, and grain judging is made a prominent feature.

The short course in dairying is designed to meet the requirements of creamery assistants, practical farmers, herdsmen, and others who desire to learn milk testing, butter making, the principles of animal nutrition, and practices of feeding, breeding, judging stock, and the diseases of farm animals.

The short course in horticulture is offered for those who wish to acquaint themselves with the most approved methods of orchard management. Special attention will be given to such subjects as the selection of orchard sites, selecting and obtaining nursery stock, pruning, cultivation, spraying, packing, and cooperation in the fruit business. Opportunity will be given for the laboratory study of spraying, packing, planting, pruning, and grafting. An effort is made to show where money is lost and made in the fruit business.

The short course in poultry management is given each year to aid persons who wish to gain a practical knowledge of the handling of incubators and brooders, the feeding and rearing of young chicks, the general management of mature fowls, scoring, judging, killing, and marketing. For purposes of instruction the College of Agriculture keeps representatives of leading breeds of fowls.

Very few text-books are used in any of the courses and the expenses for board and room, which are the only other expenses, are moderate. Circulars giving the dates and programs of these courses are published each year and will be sent upon application to the College of Agriculture.

### Farmers' Week

There are a large number of people who cannot come to the college for a great length of time, but who desire a few days of practical instruction. To reach and accommodate these, "Farmers' Week" is held. Lectures on practical agricultural subjects are given morning, afternoon, and evening. Practical demonstrations occupy a part of each afternoon. Besides the practical subjects discussed, one or more sessions are given up to problems of rural betterment. A section is arranged where home economics for farmers' wives is taught. Dates and programs may be secured each year by addressing the College of Agriculture.

### Department of Agricultural Extension

This department offers correspondence courses, lecture courses, demonstration work, cooperative experiments, and extension schools in agriculture.

This work is intended to give direct help to those on the farm and in the home; to aid those who desire definite instructions in practical

agriculture, animal and dairy husbandry, poultry husbandry, home economics, forestry, and horticulture. It supplements the teaching and experimenting of the College of Agriculture and the Agricultural Experiment Station. It is professedly a popular work because it endeavors to aid the farmer to solve the practical problems of the farm, to quicken agricultural work, and to inspire greater interest in country life.

### *Correspondence Courses*

These courses are given by means of text-books and publications of the college, the U. S. Department of Agriculture, or the various experiment stations. The text-books are furnished at publishers' prices. The courses are free and may be taken by individuals, granges, reading circles, or other organizations. A certificate will be given to students completing any of these courses with satisfactory standing.

The following courses are offered:

- Course 1—Farm Crops and Crop Production
- Course 2—Farm Management
- Course 3—Feeding and Breeding of Farm Animals and Dairy-  
ing
- Course 4—Poultry Keeping
- Course 5—Fruit Growing
- Course 7—Elementary Agriculture
- Course 8—Home Economics
- Course 9—Vegetable Gardening
- Course 10—The Business of Dairying

### *Lecture Courses*

Lectures in these courses are given under the auspices of granges, clubs, societies, and other gatherings by the members of the agricultural faculty.

A complete list of the lectures will be forwarded on request.

## **Extension Schools in Agriculture**

To extend the advantages of agricultural instruction to persons actively engaged in agriculture, the Extension Department will conduct a limited number of three-day schools in various parts of the State.

## **Correspondence**

Besides the Demonstration, Correspondence, and Lecture Courses, the College of Agriculture welcomes correspondence on practical farm topics.

If information is desired along lines relating to crops, fertilizers, dairy work, feeding, or orcharding and gardening, the various instructors are ready to give such assistance as they are able.

A free "Extension Bulletin," dealing with agricultural and home economics subjects, is issued at frequent intervals thruout the year. This bulletin is sent to all persons whose names appear on the bulletin mailing list and to such other persons as may apply for it.

Circulars giving full information upon these subjects will be sent upon request.



## Departments of Instruction

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NOTE.—A star (\*) before the time designated for a course indicates that three hours of actual work are required to obtain credit for one hour; a dagger (†) indicates that two hours are required to obtain this credit. *Courses having an odd number are given in the fall semester and those having an even number in the spring semester.*

If the student so elects, he may prepare a thesis upon some subject related to his major work. The subject should be selected and approved by the head of the department before the close of the junior year.

Courses numbered 1-50 are for undergraduates only; courses numbered 50-100 are for graduates and undergraduates; courses numbered 100 and above are primarily for graduates.

### AGRICULTURAL EDUCATION

PROFESSOR HILL; ASSISTANT PROFESSOR THOMAS

NOTE.—The passage of the Smith-Hughes bill has greatly stimulated the introduction of agricultural courses in secondary schools. No one is eligible to teach these courses unless he has taken an approved teacher-training course. There are two such teacher-training courses in the College of Agriculture.

The first course is designed for those who wish to specialize in agricultural education. It leads to the degree of B. S. in Agricultural Education. The curriculum for agricultural education may be found on a preceding page, along with the other curricula.

The second course is designed for those who wish to specialize in some other line than agricultural education. Such students will major in another department, but will take their electives from the curriculum in Agricultural Education. The following electives must be taken by all students regardless of their major subject: Education 55, Education 78, Agricultural Education 3, Agricultural Education 4, Agricultural Education 8, Mechanical Engineering 5, Mechanical Engineering 6, Rural Sociology 82, Forestry 2, Horticulture 1, Horticulture 9, Horticulture 20, Farm Management 74, Animal Industry 7.

Students who elect either of the teacher-training courses must have had at least two years of practical farm work since their fourteenth birthday. One of these years must include all the year round experience. Experience on the home farm while attending school satisfies the requirement. Those who do not meet this requirement of practical experience will be allowed to take the course only with the understanding that they

will be expected to get this experience before they will be allowed to teach.

3. SPECIAL METHODS IN TEACHING AGRICULTURE.—The following topics are given consideration: The Smith-Hughes Act; the agricultural curriculum; seasonal sequence of topics; lesson plans; supervised study; laboratory work; field trips; room and equipment; supervised practical work; records. Class room, *two hours a week*; laboratory, *†two hours a week*.

4. PRACTICE TEACHING.—During the first six weeks of the spring semester the seniors will be expected to do directed teaching in an approved school. They will hand in daily lesson plans and will report on how these work out. While engaged in this work they will be given an allowance to pay for their traveling expenses and board. *Four hours credit*.

6. PRINCIPLES OF AGRICULTURAL EDUCATION.—This course deals with the history of agricultural education; a study of the purposes of agricultural education; types of schools; the rural school; consolidation of schools; the agricultural college; the extension service; prevocational agriculture, etc. Class room, *two hours a week*.

8. PRACTICE TEACHING.—This course is for those who are majoring in other departments. It calls for observation of teaching and also for directed teaching in an approved school. *Two hours credit*.

## AGRONOMY

PROFESSOR SIMMONS; ASSISTANT PROFESSOR HELMICK; MR. SWIFT

### Soils

1. SOILS.—Lectures and recitations on the origin, types, physical properties, moisture content, and distribution of soils, and their relation to crop production. The fundamental principles underlying soil management for soil conservation and improvement will be studied. Class room, *two hours a week*; laboratory, *\*three hours a week*.

3. SOIL FERTILITY.—This course deals with stable manures, green manures, commercial fertilizers, and soil amendments; also a study of soil organisms as affecting the plant food in the soil. *Two hours a week*.

52. SOIL SURVEYING AND MAPPING.—A study is made of soil types, the principles of correlation and methods of soil surveying and mapping. Class room, *two hours a week*; laboratory, *\*three hours a week*.

54. SOIL FERTILITY.—Soil improvement investigation. A review of the experimental work in this country and abroad. The application of these results to soil improvement and crop production problems. Prerequisites, Courses 1 and 3. *Two hours a week*.

## Crops

11. FIELD CROPS.—A general course including a study of the most important cereal, grass, forage, and root crops, their adaptation to systems of rotation, culture and uses, with special reference to New England conditions. Class room, *two hours a week*; laboratory, *†two hours a week*.

12. FIELD CROPS.—A laboratory course in seed and grain identification, improvement by grading, testing, selecting, and preparing seed for planting. A collection of weeds and their seeds will be required. *†Four hours a week*.

13. FIELD CROPS. JUDGING AND COMMERCIAL GRADING.—Comparative judging of corn, small grains, and potatoes, according to standards. A study of market grade requirements. Class room, *one hour a week*; laboratory, *†two hours a week*.

14. FIELD CROPS. CORN.—A course dealing with the production of corn and the care and marketing of the crop. Types and varieties of both field and sweet corn will be considered in this course. Class room, *one hour a week*; laboratory, *†two hours a week*.

15. FIELD CROPS. ROOTS AND TUBERS.—A course dealing with the production, storage, and marketing of roots and tubers. Class room, *one hour a week*; laboratory, *†two hours a week*.

16. FIELD CROPS. GRASSES AND FORAGE CROPS.—Lectures and laboratory work dealing with the grasses and forage plants. A study of the hay crop and markets; soiling systems, and their adaptation to local conditions. Class room, *one hour a week*; laboratory, *†two hours a week*.

18. FIELD CROPS. CROP IMPROVEMENT.—A study of the principles and methods involved in field crop improvement. The work of experiment stations in this country and abroad is reviewed. Prerequisites, Courses 11 and 12. *Two hours a week*.

62. SYSTEMATIC FIELD CROPS.—A course designed for advanced or graduate students preparing for experimental work, teaching, or plant breeding. Students will be expected to grow and collect material under the supervision of the department during the summer months. Prerequisite, adequate training in botany and field crops. Time must be arranged with the instructor not later than the middle of the junior year. *Two or more hours a week*.

63. SYSTEMATIC FIELD CROPS.—A continuation of Course 62. *Two or more hours a week*.

65. SEMINAR.—A study of recent literature, problems, and experiments pertaining to agronomy and farm management. *One hour a week*.

66. SEMINAR.—A continuation of Course 65. *One hour a week*.

67, 68. THESIS.—*Three hours a week*.

## ANIMAL INDUSTRY

PROFESSOR CORBETT; ASSISTANT PROFESSOR DORSEY; MR. GARDNER

### Animal and Dairy Husbandry

2. TYPES AND BREEDS OF FARM ANIMALS.—A study of the types and breeds of farm animals. A course covering the history, development, and characteristics of farm animals. *Two hours a week.*

3. CARE, FEED, AND MANAGEMENT OF LIVE STOCK.—A course dealing with the selection, breeding growing, and maintenance of horses, cattle, sheep, and swine. Prerequisites, Courses 2 and 4. *Two hours a week.*

4. LIVE STOCK JUDGING.—This course is designed to acquaint the students with the types and breed characteristics of farm animals, by use of the score card, comparative judging, and the selection of breeding stock. To be taken in connection with Course 2. †*Two hours a week.*

5. LIVE STOCK JUDGING.—A continuation of Course 4. †*Two hours a week.*

6. LIVE STOCK FEEDING.—A study of the general principles of nutrition as applied to live stock, composition of feed stuffs, comparison and use of feeding standards, calculating rations, methods of feeding for economic production. Prerequisites, Course 3, Biochemistry 1 and 2. *Two hours a week.*

7. GENERAL DAIRYING.—Given by lectures, assigned reading, recitations, and laboratory practice. Milk; its secretion, composition, properties, pasteurization, separation; dairy practices in handling milk and cream, dairy equipment, use of common dairy machinery; preparation of starters; test of dairy products for fat (Babcock method), acidity, total solids, common adulterations, and preservatives. Class room, *two hours a week*; laboratory, †*four hours a week.*

8. BUTTER MAKING.—Lectures and laboratory practice in starter making, cream ripening, churning, and preparing butter for market. Prerequisite, Course 7. Class room, *one hour a week*; laboratory, †*six hours a week.*

9. CHEESE MAKING.—Lectures, recitations, and laboratory practice in the manufacture and curing of various types of cheese, including Cheddar and soft cheeses adapted to the New England trade. The laboratory work requires six consecutive hours. Prerequisite, Course 7. Class room, *two hours a week*; laboratory, \**six hours a week.*

51. DAIRY TECHNOLOGY.—A study of dairy products; dairy by-products; factory machinery and operations; certified milk; markets and marketing; educational work with dairymen. Given by lectures, recita-

tions, assigned readings, and round table conferences. Prerequisite, Course 7. *Three hours a week.*

52. ADVANCED LIVE STOCK JUDGING AND MANAGEMENT.—A laboratory course in which the individual student gets experience in handling live stock and preparation of stock for the show ring and market. As far as possible, visits will be made to live stock farms. †*Two hours a week.*

53. ADVANCED LIVE STOCK FEEDING AND MANAGEMENT.—Nutrition and feeding experiments, as well as the methods and practices of the most successful feeders in the production of milk, meat, and the rearing of horses, are studied. *Two hours a week.*

54. ADVANCED ANIMAL BREEDING.—Principles and theories of breeding as applied to the live stock industry; study of pedigrees and records by the use of the different herd books; an economic study of the generative systems of domestic animals. Prerequisites, Course 3, and Veterinary Science 6. *Two hours a week.*

55, 56. THESIS.—*Three hours a week.*

58. ICE CREAM MAKING.—Lectures and recitations on the history and methods of the manufacture of ice cream and ices. Laboratory practice in the manufacture of ice cream and ices. Prerequisite, Course 51. Class room, *one hour a week*; laboratory, *three hours a week.*

## Poultry Husbandry

1. TYPES, BREEDS, AND MANAGEMENT OF POULTRY.—Lectures and recitations on the origin and development of the types, breeds, and varieties of fowl, ducks, geese, and turkeys; the general care, feed, and management of farm poultry; and the marketing of poultry products. Laboratory exercises include practice in poultry management, poultry judging, and the preparation of poultry products for market. Class room, *two hours a week*; laboratory, †*two hours a week.*

2. TYPES, BREEDS, AND MANAGEMENT OF POULTRY.—A continuation of Course 1. Class room, *one hour a week*; laboratory, †*two hours a week.*

3. COMMERCIAL POULTRY FARMING.—Lectures and recitations on the business of poultry farming; the systems and operations in use on large poultry farms; the planning of specialized poultry farms. Class room, *one hour a week*; laboratory, †*two hours a week.*

4. POULTRY FEEDING.—Lectures and recitations on the general principles of nutrition as applied to poultry; poultry feeds; calculating rations; estimating cost of feeds and feeding, and methods of feeding for economical production. Prerequisites, Courses 1 and 2. Class room, *two hours a week.*



5. **POULTRY LITERATURE.**—A study of experimental data on poultry management. Prerequisites, Courses 1, 2, and 4. Class room, *two hours a week*.

6. **INCUBATION AND BROODING.**—Lectures and recitations on the principles of incubation and brooding. Laboratory practice in incubator and brooder management. Prerequisites, Courses 1 and 2. Class room, *three hours a week*; laboratory, *†two hours a week*.

7. **POULTRY BREEDING.**—Lectures and recitations on the principles of breeding as applied to poultry; the inheritance of egg productivity; systems of breeding; mating of utility and exhibition poultry and care of breeding stock. Prerequisites, Courses 1, 2, and 4. Class room, *two hours a week*; laboratory, *†two hours a week*.

51, 52. **THESIS.**—*Three hours a week*.

## BACTERIOLOGY AND VETERINARY SCIENCE

PROFESSOR RUSSELL; MISS CHANDLER

1. **BACTERIOLOGY.**—A laboratory course in general bacteriology. Open to all students. The work includes the preparation of the usual culture media and the study of the morphological and biological characteristics of typical bacteria. Some outside reading will be required. Required of students taking major work in Agriculture. *†Six hours a week*.

2. **BACTERIOLOGY.**—Similar to Bacteriology 1. Offered for students in the College of Technology and others who may elect it. *†Six hours a week*.

3. **BACTERIOLOGY.**—A lecture course open to all students. It should be elected by students taking Course 1 as well as by students not taking a laboratory course. Subjects considered will include the history of bacteriology; classification and biological characteristics of bacteria, bacteria in air, water, soil, and dairy products; the relation of bacteria to health and disease; immunity. *Two hours a week*.

12. **VETERINARY SCIENCE.**—This course deals with the anatomy, physiology, and diseases of poultry. *Two hours a week*.

14. **VETERINARY SCIENCE.**—A combined lecture and laboratory course dealing with the anatomy and physiology of our domestic animals, and their treatment to preserve and restore health. *Three hours a week*.

15. **VETERINARY SCIENCE.**—A continuation of Course 14. Prerequisite, Course 14. *Two hours a week*.

16, 17. **VETERINARY SCIENCE.**—A clinic open to all students studying veterinary science. *One hour a week*.

19. **VETERINARY SCIENCE.**—Veterinary materia medica and pharmacy. *Two hours a week*.



52. BACTERIOLOGY.—A study of the physiology of bacteria; bacteriological analysis of water; and investigation into the sources of milk bacteria. Prerequisite, Course 1 or 2. Class room, *one hour a week*; laboratory, *†four hours a week*.

53. BACTERIOLOGY.—A study of the physiology of bacteria; bacteriological analysis of water; and a study of soil bacteria. Prerequisite, Course 1 or 2. Class room, *one hour a week*; laboratory, *†four hours a week*.

54. BACTERIOLOGY.—A course which will consider such dairy experiments as the effect of pasturization on milk bacteria; quantitative bacterial determination of butter and cheese; study of typical milk bacteria; use of special biochemic tests for quality of milk; study of effect of separators, clarifiers, coolers, etc., on the bacterial content of milk and cream. Prerequisite, Course 52. *†Four to six hours a week*.

55. BACTERIOLOGY.—An experimental consideration of ammonification, nitrification, and denitrification in the soil; study of relation of bacteria to soil fertility; symbiosis. Prerequisite, Course 52. *†Four to six hours a week*.

56. BACTERIOLOGY.—Lectures and reference work upon various problems, relating to different phases of sanitary milk production; relation of microorganisms to butter and cheese; discussion of the effect of various dairy operations upon quality of dairy products. Open only to students taking Course 54. Prerequisite, Course 52. *Two hours a week*.

57. BACTERIOLOGY.—Lectures and reference work upon various problems relating to bacteria and soil fertility; discussion of ammonification, nitrification, and denitrification in the soil; a consideration of symbiosis. Open only to students taking Course 55. Prerequisite, Course 53. *Two hours a week*.

101, 102. BACTERIOLOGY.—This is a laboratory course for students who desire to pursue some particular line of bacteriological investigation. Open only to students who have done considerable work in bacteriology. The kind of work and the time will be arranged to suit individual students.

## BIOLOGICAL AND AGRICULTURAL CHEMISTRY

PROFESSOR MERRILL; ASSISTANT PROFESSOR SMITH

1. BIOCHEMISTRY.—Lectures and recitations on the composition of the plant; the source, nature, and assimilation of plant food; fermentation, its nature, effects, and control. *Two hours a week*.

2. BIOCHEMISTRY.—A continuation of Course 1. The composition of the animal body and of food materials; the adaptation of food to ani-

mal requirements; the chemical changes involved in the digestion and assimilation of foods; respiration; absorption and liberation of energy. Class room, *three hours a week*; laboratory, †*four hours a week*.

3. ECONOMIC GEOLOGY.—A course in applied geology, including a general survey of our mineral resources, with special reference to the mineral fuels; the distribution and manner of occurrence of the more useful metals; the economically important nonmetallic minerals; and a study of the rocks and their uses as building stone, as road material, and as sources of lime and cement. *Two hours a week*.

5. GEOLOGY.—A study of the earth's history and development, with especial attention to dynamical, structural, and physiographical geology. *Three hours a week*.

6. AGRICULTURAL CHEMISTRY.—This course includes a study of the origin and composition of soils; the source and composition of fertilizing materials; the fixation of atmospheric nitrogen; the composition of insecticides and fungicides; the chemistry of milk and other dairy products. Prerequisite, Course 1. *Two hours a week*.

7. BIOCHEMISTRY.—An abridged course, including a study of the protein, fats, and carbohydrates, the digestive enzymes and processes, the tissues and secretions of the body. Class room, *three hours a week*; laboratory, †*four hours a week*.

8. FOOD ANALYSIS.—A brief introduction to quantitative analysis, with laboratory practice in the analysis of foods; lectures on food adulteration and methods for its detection. Laboratory, †*six hours a week*.

9. ORGANIC CHEMISTRY.—A brief course designed for students in Agriculture and Home Economics. Class room, *two hours a week*; laboratory, †*two hours a week*.

51. BIOCHEMISTRY.—Lectures and recitations on the composition of the plant; the source, nature, and assimilation of plant food; the composition of the animal body and of food materials; the adaptation of food to the animal requirements; the chemical changes involved in the digestion and assimilation of foods; respiration; absorption and liberation of energy; general metabolism; the chemical processes and methods of investigation by which these subjects are studied. Prerequisites, Chemistry 51 and 52. *Three hours a week*.

52. LABORATORY BIOCHEMISTRY.—A study of the carbohydrates, fats, and protein bodies; the digestive enzymes; the blood, muscles, bones, and other tissues of the body; milk, bile, and other secretions. A continuation of the preceding course. †*Four hours a week*.

60. AGRICULTURAL ANALYSIS.—A course in the qualitative analysis of fodders, fertilizers, milk, butter, and other dairy products. The course is designed for students desiring to take up experiment station and inspection work. Prerequisites, Chemistry 51, 52, and 61. †*Eight hours a week*.

## BIOLOGY

*The courses in this department are described under the College of Arts and Sciences.*

## FARM MANAGEMENT AND AGRICULTURAL ENGINEERING

PROFESSOR SIMMONS

2. FARM ACCOUNTING. (a) FARM MATHEMATICS.—Instruction in this subject consists in the application of its principles to all kinds of farm problems where measurements of material, extension, capacity, etc., are required.

(b) FARM RECORDS AND ACCOUNTS.—A system of records of the various operations of the farm, such as records of field labor, crop yields milk production in the dairy, etc., a system of accounts showing the receipts and expenditures of the farm. †*Four hours a week.*

### 71. AGRICULTURAL ENGINEERING AND RURAL ARCHITECTURE.

(a) AGRICULTURAL ENGINEERING.—Farm surveying and leveling; the plotting of farms and measurements of land; a study of drainage; estimating the investment and returns from a system of drainage; the making of roads; road materials.

(b) RURAL ARCHITECTURE.—The planning, designing, location, and construction of farm buildings, water systems, sewerage, and concrete construction. Class room, *two hours a week*; laboratory, *\*three hours a week.*

72. FARM MECHANICS AND MACHINERY. (a) FARM MECHANICS.—A study of the simpler laws of mechanics as applied to farm implements and farm machinery.

(b) FARM MACHINERY.—A study of machinery used on the farm, farm power, etc. Demonstrations and tests are made with various machines and implements. Class room, *two hours a week*; laboratory, *\*three hours a week.*

73. HISTORY AND ECONOMICS OF AGRICULTURE. (a) HISTORY OF AGRICULTURE.—A history of agriculture from early times to the present day; the beginning of British agriculture, and the development of modern agriculture; the agriculture of the United States, its influence on social conditions; the importance of our leading products, and their effect on the world's commercial life; the agriculture of different sections; the development of farm machinery; progress in agricultural education. Lectures supplemented by illustrative material and slides.

(b) **ECONOMICS.**—The factors of agricultural production, and economic properties; organization of the farm; rent of farm land and the law of diminishing returns from the land; systems of distribution; a study of life in the rural communities; schools and other rural organizations. Class room, *two hours a week*; laboratory, *†two hours a week*.

74. **FARM MANAGEMENT.**—A study of the various types of farming, with comparison of investment and returns from each. A study will be made of the conditions under which extensive, intensive, and mixed systems of farming prosper or fail; laying out of fields and rotations of crops; investigation of cost of different farming operations; management of men and teams; markets and marketing. Farm surveys, with a detailed study of the condition on different farms, will be made. Farm plans will be outlined to suit various conditions. Class room, *two hours a week*; laboratory, *\*three hours a week*.

## FORESTRY

PROFESSOR BRISCOE; MR. CHAPMAN

1. **ECONOMICS OF FORESTRY.**—The importance and scope of the subject; the influence of forests on the conservation and distribution of water; influence on soils, topography, and public health; the relation to agriculture, stock raising, mining, railroads, manufactures, and industries in general; the character, extent and distribution of forest resources, national, state and private. Required of all freshmen majoring in forestry, and open to all students. *Two hours a week*.

2. **WOODLOT FORESTRY.**—The general principles of forestry, with special reference and application to the farm woodlands, particularly in this region. Lectures and text book work in elementary systems of cutting, estimating, protection and reforestation. Especially for agricultural students. Open to all students. *Two hours a week*.

3. **WOOD IDENTIFICATION AND USES.**—The identification and classification of the economic woods of the United States, based on simple lens inspection; the technical qualities of various species and their uses in the arts and trades; their commercial production. Prerequisite, General Botany 2. *Two hours a week*.

4. **WOOD PRESERVATION.**—The durability and seasoning of native woods; preservatives in commercial use; methods of operation and equipment of preserving plants. Special attention given to posts, ties, poles, paving-blocks and structural timbers. First half of semester. *Two hours a week*.

5. **HISTORY OF FORESTRY.**—The development of forestry in European countries and in the United States. Second half of semester. *Two hours a week*.

6. **FOREST MENSURATION.**—Lectures and recitations. Instruction in the theory and application of forest measurements. Calculation and computations from data obtained in the field work. Course 8 to accompany this course. *Two hours a week.*

8. **FOREST MENSURATION FIELD WORK.**—Practical field work to be taken in connection with Course 6. The use of instruments, scaling and estimating. *\*Six hours a week.*

9. **FOREST PRODUCTS.**—Dealing with forest products other than logs and lumber, such as pulp-wood, veneers, shingles, lath, tight and slack cooperage, hoops and headings, excelsior, vehicle woods, spool stock, turpentine, tannin, gums, syrups, dye-woods, and charcoal. Methods of utilization, markets and values. First half of semester. *Two hours a week.*

10. **FOREST PROTECTION.**—Systems of fire protection practiced by the federal and state governments, and by individuals and associations; protection against other natural enemies of the forest such as insects, fungi, wind, animals and weed growth. First half of semester. *Two hours a week.*

11. **FOREST MENSURATION.**—A continuation of Course 6, taking up the study of age, growth, taper, form-factors, yield and volume tables. *Two hours a week.*

12. **PRACTICE OF FORESTRY.**—Applied systems of silviculture and management considered in relation to the commercially important species and types of forest in the United States; discussions of management as practiced in Europe, and of the application of such systems to forest conditions in this country. Forestry seniors only. *Two hours a week.*

13. **FOREST MENSURATION FIELD WORK.**—To be taken in connection with Course 11. Collection of data for making a map of an assigned tract; studies of age, growth and yield under different conditions and in various types; determination of form factors; construction of volume tables. *\*Six hours a week.*

14. **FOREST MANAGEMENT.**—Construction of a working plan for an assigned tract of forest land; map making for forestry work with a complete report and plans for the management of the same. Forestry seniors only. *\*Six hours a week.*

15. **SILVICULTURE.**—A study of silvics, the life factors determining the character and form of forest vegetation. The development of forest types and the silvical characteristics of stands. Cultural measures in the forest; the forest regions of the United States. Prerequisites, Biology 67 and 68. *Two hours a week.*

16. **SILVICULTURE.**—A continuation of Course 15, with special attention to the silvicultural systems of management; the application of thinning, methods of reproduction both natural and artificial. *Two hours a week.*



17. SILVICULTURE FIELD WORK.—Assigned problems in connection with Course 15. Studies of tolerance. Special studies and practical work in the forest; the preparation of a type map and detailed silvicultural report. *\*Six hours a week.*

18. NURSERY PRACTICE.—To be taken in connection with Course 15. Tests of the germinating qualities of seeds of forest trees, and a study of seeds and seedlings. Planting and transplanting in the State Forest Nursery (a minimum of 72 hours actual time regardless of schedule changes on account of weather); practice in field planting. *\*Six hours a week.*

19. LUMBERING.—The lumber industry in the United States considered from the economic standpoint; an account of the methods of logging and manufacture in different regions. Textbook and lectures. Forestry seniors only. *Two hours a week.*

20. FOREST FINANCE.—Business principles applied to forest management. Forest valuation; the theory of the normal forest; calculations for sustained yield and continuous revenue from forest resources; forms for accounts and cost keeping; preparation of reports for federal income tax on timber lands. Forestry seniors only. *Two hours a week.*

21. LUMBERING FIELD WORK.—To be taken in connection with Course 19. Inspection of pulp mills and lumbering operations, during the first half of the semester. Inspection, detailed study and report of an assigned typical logging operation. For credit a student must spend at least six ten-hour days in a lumber camp. *\*Six hours a week.*

22. FOREST POLICY.—National and state forest policy and administration; relation of government, corporations and individuals in regard to forest policies and applied forest management. Forestry seniors only. First half of semester. *Two hours a week.*

23. CURRENT FORESTRY LITERATURE.—Reviews of periodicals, books and current forestry literature; preparation of a card index under subject and author headings. Forestry seniors only. *One hour a week.*

24. CURRENT FORESTRY LITERATURE.—A continuation of Course 23. *One hour a week.*

25, 26. THESIS.—Credits of from 2 to 6 hours will be allowed students desiring to elect thesis work in forestry. Work on original problems and investigations may be undertaken with the approval of the department. *Time to be arranged.*

28. FORESTRY LAWS.—Laws of the federal government and of the several states concerning forests and forestry. Forestry students only. Second half of semester. *Two hours a week.*



## HOME ECONOMICS

PROFESSOR FREEMAN; ASSISTANT PROFESSOR ANDERSON; ASSISTANT PROFESSOR MCGINNIS; MISS PEABODY

1, 2. TEXTILES AND CLOTHING.—A study of fibers and fabrics from a historic, economic, and social standpoint. The laboratory work consists of the making of plain garments, involving drafting and design, and selection of materials. Recitation, *two hours a week*; laboratory, *†four hours a week*.

3. DESIGN.—The object is to develop the appreciation of harmony of line, space, and color. Recitation, *one hour a week*; laboratory, *†two hours a week*.

4. DESIGN.—A continuation of Course 3. Recitation, *one hour a week*; laboratory, *†four hours a week*.

5, 6. FOODS.—A study of food composition, cost, and the principles involved in preparation. The laboratory work consists in the preparation of the various types of foods. Prerequisites, Chemistry 1 or 3, 5, 2 or 4, and 6. Recitation, *two hours a week*; laboratory, *†four hours a week*.

7. DRESS.—Economics, hygiene, design, and color are studied in their relation to dress. The laboratory work consists in designing and drafting of pattern, selection of materials, and the making of dresses. Prerequisites, Courses 1, 2, 3, and 4. Recitation, *two hours a week*; laboratory, *†four hours a week*.

8. DRESS.—A continuation of Course 7. Laboratory, *†six hours a week*.

9. SANITATION.—The situation of the house regarding general surroundings; sanitary conditions in and around the house, ventilation, water supply, heating, and plumbing; the householder's interest in public sanitation and hygiene. Prerequisites, Bacteriology 1 and 3. Recitation, *three hours a week*.

10. DIETETICS.—The chemical, economic, and physiological principles of human nutrition are studied. Prerequisites, Courses 5 and 6, and Biochemistry 7. Recitation, *three hours a week*; laboratory, *†four hours a week*.

11. FOODS.—Problems in the preparation and serving of foods. A continuation of Courses 5 and 6. Recitation, *one hour a week*; laboratory, *†four hours a week*.

12. HOUSEHOLD MANAGEMENT.—A study of economic and social principles of the household; organization of the household; division of income, labor, household processes; care of the household. Open to seniors. Recitation, *four hours a week*.

13. **HANDWORK.**—Historical and social development of textile industry from primitive man to modern times. Laboratory, †*four hours a week*.

14. **NURSING.**—Personal hygiene; the practical application of bacteriology and physiology in health and disease; the care of the baby; first aid to the injured. Prerequisites, Bacteriology 1 and 3, and Biology 5. *Three hours a week*.

16. **TEACHERS' COURSE.**—Methods of presenting the work and its correlation with other subjects. Practice in planning courses of study and equipment. Open to seniors. *Three hours a week*.

17, 18. **HOUSE CONSTRUCTION AND FURNISHING.**—The evolution of the house, of house furnishings, their color, design and cost. The laboratory work consists in the planning of the house, making plans and estimates for house furnishings, and visiting shops. Open to seniors. Recitation, *one hour a week*; laboratory, †*four hours a week*.

19, 20. **THESIS.**—Different phases of home economics. Individual problems. Open to seniors. *Two to four hours a week*.

21, 22. **HOUSEHOLD ADMINISTRATION.**—The planning, buying, preparation and serving of meals; household accounts; care of the house. Open to seniors. *Three credit hours*. Work done in Practice House.

## HORTICULTURE

PROFESSOR SWEETSER; MR. WIGGIN

1. **COMMERCIAL POMOLOGY.**—A course in methods of picking, grading, packing, storing, and marketing fruit. The laboratory work of this course will acquaint the student with the more important varieties of fruit in this State. Class room, *two hours a week*; laboratory, †*two hours a week*.

2. **PRACTICAL POMOLOGY.**—A study of orchard sites and soils, methods of propagating, setting, cultivating, fertilizing, pruning, and spraying. Class room, *two hours a week*; laboratory, \**three hours a week*.

3. **SYSTEMATIC POMOLOGY.**—A systematic study of the types and varieties of the leading groups of fruits, their evolution and adaptation to environment; also distribution of varieties in the State. Prerequisites, Courses 1 and 2. Class room, *two hours a week*; laboratory, †*two hours a week*.

5. **LANDSCAPE GARDENING.**—A study of the principles of landscape art and of the materials used in making landscape pictures. Special attention is given to the improvement of the home grounds. Class room, *two hours a week*; laboratory, †*two hours a week*.

7. **GENERAL FLORICULTURE.**—A study of the culture, propagation, management, and care of flowers for commercial purposes. Methods of

producing, shipping, marketing, and designing, will be considered. Class room, *two hours a week*; laboratory, *†two hours a week*.

8. GREENHOUSE CONSTRUCTION.—A study of the various types of greenhouses and the methods of construction. Estimates and plans are made for houses suitable for conservatories, private estates, and commercial floriculture. Cost and methods of installing heating systems, show rooms, and storage houses are also considered. Class room, *two hours a week*; laboratory, *†two hours a week*.

9. SMALL FRUIT CULTURE.—A study of the bush and vine fruits, including strawberries; adapted varieties; methods of propagation, culture, harvesting, and marketing. Class room, *two hours a week*; laboratory, *†two hours a week*.

11, 12. THESIS.—*Three hours a week*.

20. VEGETABLE GARDENING.—A course in practical vegetable growing, dealing with the production of vegetables for home use or market. Handling hot beds and cold frames will be included. Class room, *two hours a week*; laboratory, *†two hours a week*.

21. COMMERCIAL OLERICULTURE.—This course is designed to include harvesting, marketing, and systematic study of types and varieties of vegetables; also storage and care of vegetables for seed production. Prerequisite, Course 20. Class room, *two hours a week*; laboratory, *†two hours a week*.

50. PLANT BREEDING.—A course in plant breeding, as applied to variation, selection and hybridization, adapted to garden and fruit crops. Prerequisite, Biology 7. *Two hours a week*.

51, 52. SEMINAR.—Preparation, presentation and discussion of horticultural problems. Special emphasis is given to problems in marketing. Required of students taking major work in horticulture. Open to any student in the university. *One hour a week*.

54. FLORICULTURE.—A course designed to give practical knowledge of the propagation and culture of annuals, herbaceous perennials, bulbs, roses, bedding plants, and other garden plants, with especial reference to care of public parks and private estates. Class room, *two hours a week*; laboratory, *†two hours a week*.

55. FRUITS AND VEGETABLES UNDER GLASS.—A study of the various fruits and vegetables that are grown under glass. A course suited to the needs of either commercial work or private estates. Prerequisite, Course 1. Class room, *two hours a week*.

56. PLANT DISEASE CONTROL.—A course designed to acquaint the student with the various kinds and types of spray machinery, and with the preparation and application of the various sprays used in disease control. Prerequisites, Courses 1 and 2. Class room, *one hour a week*; laboratory, *†two hours a week*.

## College of Arts and Sciences

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### FACULTY OF INSTRUCTION

- JAMES STACY STEVENS, M.S., LL.D., *Dean and Professor of Physics*  
 LUCIUS HERBERT MERRILL, Sc.D., *Professor of Biological and Agricultural Chemistry*  
 JAMES NORRIS HART, C.E., M.S., Sc.D., *Professor of Mathematics and Astronomy*  
 JOHN HOMER HUDDILSTON, Ph.D., *Professor of Ancient History and Art*  
 JACOB BERNARD SEGALL, Ph.D., *Professor of French*  
 GEORGE DAVIS CHASE, Ph.D., *Professor of Latin*  
 CAROLINE COLVIN, Ph.D., *Professor of History*  
 WALLACE CRAIG, Ph.D., *Professor of Philosophy*  
 MINTIN ASBURY CHRYSLER, Ph.D., *Professor of Biology*  
 CLARENCE WEBSTER PEABODY, A.B., LL.B., *Professor of Law*  
 ROY MERLE PETERSON, Ph.D., *Professor of Spanish and Italian*  
 ROBERT RUTHERFORD DRUMMOND, Ph.D., *Professor of German*  
 HARLEY RICHARD WILLARD, Ph.D., *Professor of Mathematics*  
 JOHN H ASHWORTH, Ph.D., *Professor of Economics and Sociology*  
 CHARLES ANDREW BRAUTLECHT, Ph.D., *Professor of Chemistry*  
 HAROLD MILTON ELLIS, Ph.D., *Professor of English*  
 ALBERT LEWIS FITCH, Ph.D., *Professor of Physics*  
 LUTHER JOHN POLLARD, M.A., *Professor of Education*  
 IRVING HILL BLAKE, A.M., *Associate Professor of Biology*  
 BERTRAND FRENCH BRANN, M.S., *Associate Professor of Chemistry*  
 AVA HARRIET CHADBOURNE, M.A., *Associate Professor of Education*  
 J HOWARD TOELLE, A.M., *Associate Professor of Economics and Sociology*  
 FRANÇOIS JOSEPH KUENY, L. ès L., *Associate Professor of French*  
 CHARLES HOWARD BATCHELDER, A.B., M.S., *Associate Professor of Zoology*  
 MARK BAILEY, A.M., *Associate Professor of Public Speaking*  
 JASON LESLIE MERRILL, B.S., *Associate Professor of Chemistry*  
 LESTER SAUNDERS HILL, M.A., *Associate Professor of Mathematics*  
 JAMES WELLINGTON WHALER, A.M., *Associate Professor of English*  
 HARRY WOODBURY SMITH, B.S., *Assistant Professor of Biological and Agricultural Chemistry*  
 ALBERT AMES WHITMORE, M.A., *Assistant Professor of History*  
 ADELBERT WELLS SPRAGUE, *Director of Music*  
 LEO HENRY DAWSON, A.M., *Assistant Professor of Physics*

RUFUS WILLIAM McCULLOCH, A.M., *Assistant Professor of English*  
 MARION STEPHANIE BUZZELL, M.A., *Instructor in French*  
 PLATT ASHLEY PEARSALL, B.S., *Instructor in Chemistry*  
 FRANCES ELIZABETH ARNOLD, B.A., *Instructor in Spanish and Italian*  
 AARON BLESS, M.A., *Instructor in Physics*  
 ISRAEL CHASMAN, A.M., *Instructor in English*  
 ROBERT DOUGALL, B.S., *Instructor in History*  
 SHERMAN JEWETT GOULD, B.S., *Instructor in Physics*  
 JOHN ELTON LODEWICK, M.S., *Instructor in Physics*  
 WARREN STANHOPE LUCAS, B.A., *Instructor in Mathematics*  
 JOHN ANTHONY STRAUSBAUGH, A.B., *Instructor in Spanish and Italian*  
 HAROLD CHANDLER WHITE, C.E., *Instructor in Chemistry*  
 JOHN NEWELL CROMBIE, B.Chem., *Instructor in Chemistry*  
 FRANK SWAN BEALE, B.S., *Instructor in Mathematics*  
 MARION KATHARYN BRAGG, B.A., *Instructor in English*  
 EDWARD CHOATE BROWN, *Instructor in Mathematics*  
 DOROTHY KOHN CHASMAN, B.S., *Instructor in English*  
 WALTER JOSEPH CREAMER, E.E., *Instructor in English*  
 HOWARD LLOYD FLEWELLING, B.A., *Instructor in English*  
 THELMA LOUISE KELLOGG, B.A., *Instructor in English*  
 WARREN EDWARD LORING, B.S., *Instructor in Mathematics*  
 MILTON ROLAND LOURIA, B.A., *Instructor in Chemistry*  
 WALTER WILLIAM PURDY, B.S., *Instructor in Chemistry*  
 WILLIAM EUGENE REYNOLDS, B.S., *Instructor in Biology*  
 GEORGE MERVIL SEELEY, A.B., *Instructor in Chemistry*  
 WILLIAM DAVID FULLER, A.M., *Lecturer in Education*  
 JAMES FRANKLIN CARTER, B.S., *Lecturer in Education*  
 JEANNE CHARLOTTE CHANTRELLE, A.B., *Lecturer in French (Summer Term)*  
 TRUE CLIFFORD MORRILL, M.A., *Lecturer in Education*  
 PERCY GOODING, S.B., *Lecturer in Chemistry*  
 MILDRED AVA BEATHAM, *Assistant in English*

## GENERAL INFORMATION

The College of Arts and Sciences offers a course of liberal training equivalent to that of the standard New England college. It designs particularly to meet the needs of three classes of students:

1. Men and women who desire to pursue a cultural college course.
2. Men and women who desire to enter professional schools.
3. Men and women who plan to fit themselves for the profession of teachers in secondary schools, or for school superintendents.



## ADMISSION

The requirements for admission are given in full elsewhere in the catalog. They are practically the same as for other New England colleges and may be met by a four-year preparatory course in a good high school or academy.

## FRESHMAN STUDIES

The character of the work of the first year is conditioned somewhat upon the subjects offered for admission.

It is recommended that all students in this college register for as much of the required work as practicable in their freshman year, and they are expected to complete the whole of this work by the end of their sophomore year.

## GRADUATION REQUIREMENTS

Every candidate for the Bachelor of Arts degree is required to complete the following amount of work in college: (2) eighteen hours in Group 1, of which eight are in English and ten in foreign language; (b) ten hours in Group 2; (c) ten hours in Group 3; (d) military science and tactics, two years, three hours a week; (e) physical training, one year, three hours a week.

Including these requirements he must complete 30 hours in his major subject, and 125 hours for his entire curriculum.

1. LANGUAGE GROUP.—This is composed of courses in language and literature offered in the departments of English, Public Speaking, French, German, Latin, and Spanish and Italian.

2. SCIENCE AND MATHEMATICS GROUP.—This is composed of the courses offered in mathematics and the biological and physical sciences, including the courses offered by the Department of Mathematics, Biology, Chemistry, Biological Chemistry, and Physics. The student is expected to follow a definite outline of courses in each department.

3. SOCIAL SCIENCE GROUP.—This is composed of the courses offered in the Departments of History, Economics and Sociology, Philosophy, Education; and the courses in Bibliography, History, Archeology, Fine Arts, Music, and Biblical Literature offered in other departments and not included in the first group.

4. MILITARY SCIENCE AND TACTICS, two years, three hours a week.

5. PHYSICAL TRAINING, one year, three hours a week.



## MAJOR SUBJECT

During the freshman year the student does not select a major subject and the registration is largely prescribed.

Beginning with the sophomore year each student must select, in some one department, work to be pursued three or four years, on the average of five recitations a week. Any one of the following departments may be chosen for major work: Biology, (including Zoology, Botany, Physiology, and Entomology), Chemistry, Economics and Sociology, Education, English, French, German, History, Latin, Mathematics and Astronomy, Philosophy, Physics, Spanish and Italian.

The major subject must include work counting not less than thirty nor more than fifty hours. In the case of departments in which less work is offered than amounts to thirty hours, this must be made up from such other related departments as the professor under whose direction the major subject is taken may prescribe. The remainder of the student's work may be selected from any department or departments of the university. This must be done with the approval of the head of the department in which the student has chosen his major subject and must bear some useful relation to his other work.

The head of the department in which the student has chosen his major subject becomes his major instructor, and during the remainder of the course this instructor acts as chief adviser in all matters relating to the curriculum, and is the representative of the student before the faculty.

## GENERAL LECTURE COURSE

A course of weekly lectures is given in the College of Arts and Sciences each semester. Attendance is open to all, and credit is granted when the course is completed.

## PROGRAM FOR SECONDARY SCHOOL TEACHERS LEADING TO A STATE CERTIFICATE

The College of Arts and Sciences of the University of Maine has arranged a program for the professional training of secondary school teachers, which will entitle those who complete it to a professional state certificate for secondary school teachers. The program has been arranged in conference with the State Superintendent of Public Schools and has his endorsement.

In addition to fulfilling the general requirements leading to the degree of Bachelor of Arts, the student is expected to complete three hours in Educational Psychology, three hours elective in Psychology, twelve hours' work in Education in the junior and senior years, thirty hours in a

major subject, and from ten to twenty hours in a minor subject. The prescribed work in Education includes three hours in the History of Education, three hours in Methods of Teaching, and six hours to be elected.

The selection of a major subject to which the student devotes 30 hours and a minor subject to which he devotes from 10 to 20 hours is designed to equip him for teaching two subjects related to the high school. Usual combinations of high school subjects are English and history, Latin and history, English and Latin, Latin and modern languages, mathematics and physics, physics and chemistry. For the completion of this course a high standard of scholarship is required. All the prescribed work must be of C grade or above. Upon completing this course the student will receive a Professional Secondary Certificate from the State Department of Public Instruction which will designate the major and minor subjects which he has pursued. A special certificate will also be issued by the university which will give a detailed outline of the student's record.

### BACHELOR OF ARTS CURRICULA

The work in the College of Arts and Sciences leads to the degree of Bachelor of Arts (B. A.). The curricula demand 125 hours and are regularly completed in four years, but a student of exceptional preparation and application may complete the requirements in three years by attending one or more summer terms. Students fitting themselves for professional or technical schools are often encouraged to do this, but prospective teachers are recommended to spend four years in college.

No outlines of the curricula in the College of Arts and Sciences are given in the catalog, but students may have an outline presented to them by applying to the professor in charge of the department in which they are interested. Groups of studies are made up which would be desirable for students intending to prepare for teaching, or to enter upon the study of law, medicine, or theology.

In this college 95 out of the 125 required hours must be made with a grade of C or above.

### BACHELOR OF PEDAGOGY CURRICULA

Graduates of the Maine normal schools who have completed a course in a Class A high school, and who have had one year of successful experience in teaching, are admitted to the university as candidates for the degree of Bachelor of Pedagogy. Such students are required to complete, with high grade, seventy-five semester hours, of which twelve shall be in the Department of Education, and a sufficient number of the remain-

ing hours shall be devoted to some one department to give them a satisfactory equipment for high school teaching.

## COMBINED ARTS AND MEDICAL CURRICULA

The marked increase in the number of pre-medical students in attendance at the university has led to the establishment of definite programs of work for such students. Owing to the work of the American Medical Association, two years pre-medical work in an Arts college has become the standard requirement for admission to class A medical schools, and with this in view the two-year course has been arranged. The three-year course has been arranged in connection with an agreement with certain medical schools, which provides that a student who completes three years at this institution may enter the medical school, and receive his bachelor's degree here at the completion of his first year at the medical school. A four-year course will be arranged to meet the need of students who wish a broader academic training before beginning their distinctly medical studies. Three or four years of academic work are strongly recommended to the prospective student.

### Two-Year Course

#### FIRST YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
General Biology.....	4	General Biology.....	4
General Chemistry.....	4	General Chemistry.....	4
English .....	2	English .....	2
Modern Language.....	5	Modern Language.....	5
Military .....	1	Military .....	1
Physical Training.....	½	Physical Training.....	1

#### SECOND YEAR

Vertebrate Morphology.....	4	Animal Embryology.....	4
Qualitative Analysis.....	5	Organic Chemistry.....	5
General Physics.....	3	General Physics.....	3
Laboratory Physics.....	1	Laboratory Physics.....	1
Military .....	1	English .....	3
Elective .....	3	Military .....	1

### Three-Year Course

#### FIRST YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
General Biology.....	4	General Biology.....	4
General Chemistry.....	4	General Chemistry.....	4
English .....	2	English .....	2
Modern Language.....	5	Modern Language.....	5
Military .....	1	Military .....	1
Physical Training.....	½	Physical Training .....	1

#### SECOND YEAR

Vertebrate Morphology.....	4	Animal Embryology.....	4
Qualitative Analysis.....	5	Organic Chemistry.....	5
General Physics.....	3	General Physics.....	3
Laboratory Physics.....	1	Laboratory Physics .....	1
Modern Language.....	3	Modern Language.....	3
Military .....	1	Military .....	1

#### THIRD YEAR

Animal Physiology.....	4	Animal Histology.....	4
English .....	3	English .....	3
Scientific German.....	2	Scientific German.....	2
Psychology .....	3	Psychology .....	3
Sociology .....	3	Social Pathology.....	3
Genetics .....	2	Elective .....	2

### PRE-DENTAL CURRICULUM

The standard dental schools now require for admission one year of college work, including biology, chemistry, and English. The following curriculum will enable pre-dental students to meet the new requirements:

General Biology .....	4	General Biology.....	4
General Chemistry .....	4	General Chemistry .....	4
English 1.....	2	English 2.....	2
Public Speaking 1.....	1	Public Speaking 2.....	1
History 7.....	3	History 8.....	3
Modern Language .....	3	Modern Language.....	3
Military 1.....	1	Military 2.....	1

Students planning to enter a dental school should be careful to elect a year's work in physics during their high school course.

## Departments of Instruction

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NOTE: A star (\*) before the time designated for a course indicates that three hours of actual work are required to obtain credit for one hour; a dagger (†) indicates that two hours are required to obtain this credit.

*Courses designated by an odd number are given in the fall semester; those designated by an even number, in the spring semester.*

*Courses numbered 1-50 are for undergraduates only; courses numbered 50-100 are for graduates and undergraduates; courses numbered 100 and above are primarily for graduates.*

### ANCIENT HISTORY AND ART

PROFESSOR HUDDILSTON

#### Ancient History

The Department of Ancient History is arranged with the idea of presenting the several phases of the ancient civilizations. Such courses are offered as will prove serviceable to the student of average interests, who not having studied the ancient languages in the fitting school, may desire to include in his college curriculum some work bearing on the permanent contributions of early peoples to the civilization of ancient and modern times.

1, 2. ANCIENT CIVILIZATION.—This course has little in common with the ancient history of the preparatory schools. It is rather the achievements of the Greeks and Romans in laying the foundations of so much that is the basis of our modern day life and thought to which attention is directed. Some examination is made of Egyptian and Eastern civilization as the historic background on which developed classical life and action. An important part of the course lies in the emphasis that is given to the Greek thought and Roman rule in the midst of which Christianity sprang up.

Instruction is entirely by lectures and each student is required to keep a note-book, and also have as parallel reading Breasted's Ancient Times. *Three hours a week.*

3. PRIVATE LIFE OF THE GREEKS AND ROMANS.—Text-book; lectures, illustrated with lantern slides and photographs; assigned reading. *Two hours a week.*

4. EARLY RELIGION.—A study of the religious conceptions of the ancient Egyptians, Persians, Greeks, and Romans and their relation to



art and literature; lectures and assigned reading; investigation of special topics by members of the class. *Two hours a week.*

51. GREEK LITERATURE.—The history of poetry,—epic, lyric, and dramatic. Types and standards of verse composition established by the ancient Greeks, and some consideration of the Greek influence upon later poetry, particularly the epic. Lectures and readings from English translations. Each student will be expected to make a special study of some one author, and in the treatment of Aeschylus, Sophocles, and Euripides, at least one play of each will be read in class, members of the class taking the several parts. This course, as well as the next on prose literature, is intended to be foundational for students majoring in classics or in modern languages. *Three hours a week.*

52. GREEK LITERATURE.—The history of prose literature in ancient Greece. History, oratory, and philosophy will be traced in succession. Students will be expected to do parallel reading, especially in Thucydides, Demosthenes, and Plato. This course may be taken only in connection with Course 51, and like the latter is intended to place the student in touch with the forces of lasting value in Greek letters. *Three hours a week.* Given in 1921-22 and alternate years.

55, 56. HISTORY OF THE NEAR EAST.—It is with the conviction that the present Near East can be understood only by the past Near East that this course is given. The early national traditions of the Near East are traced from the Greek age down thru Roman and Byzantine epochs. The brilliant periods of Balkan history are discussed with the spread of Ottoman power and the relation of Turkey to the affairs of Modern Europe. Obviously this course can be given only in the light of the Great War and the recent order of events in the Near East. Lectures and special assignments. Open only to students who have taken Aa 1 and 2, or by arrangement with the instructor. *Three hours a week.*

## Art

9. RENAISSANCE.—This period is studied particularly in Italian paintings of the fifteenth and sixteenth centuries. Lectures; study of pictures; special subjects for individual investigation. *Three hours a week.* Given in 1920-21 and alternate years.

10. ART. Ancient art in its fundamental relations to human evolution; the influence of art as a dominant force in Greece and the effects of Greek Culture upon Rome; the passing of Greek art to Latin soil; the notable national monuments of Rome. The existing remains in the European museums as well as the monuments still *in situ* in Italy, Sicily, Greece, and Asia Minor will be gone over with the photographs.

Each student will be expected to acquire some ability in estimating the styles of the various epochs. Lectures. *Three hours a week.*



11, 12. GENERAL ART HISTORY.—From the Greek age down to the time of the French Revolution. Main emphasis will be laid on the architecture and sculpture of the ancients and the painting of the Renaissance and later times. This course is intended for a rapid survey of the subject and is presented with the idea of accommodating such students as can not afford the time required by Courses 9 and 10. Instruction will be given by lectures, with a text-book for occasional quiz. *Two hours a week.*

## ASTRONOMY

PROFESSOR HART; MR. LUCAS

10. DESCRIPTIVE ASTRONOMY.—An elementary course. The text-book is supplemented by informal lectures, illustrated by lantern slides, drawings of celestial objects, and work in the observatory. Open to all students. *Three hours a week.*

15, 16. GENERAL ASTRONOMY.—Designed for general culture and for students in mathematics and physics. Recitations, lectures, solutions of problems, observations with instrument in the observatory. Open to sophomores, juniors, and seniors who have had Mathematics 1. *Three hours a week.* Given in 1920-21 and alternate years.

57. PRACTICAL ASTRONOMY.—A course arranged to meet the needs of engineering students, and consisting mainly of problems in the conversion of time, the determination of terrestrial latitudes, and the establishment of meridian lines. The data for these problems are taken largely from the students' own observations, and the course is intended to emphasize the necessity of careful work in the field, as well as accurate and well arranged computations. The instruments employed are the sextant, artificial horizon, portable chronometer, theodolite, vertical circle, astronomical transit, and zenith telescope. Open to students who have taken Mathematics 1, 3, and Astronomy 10. *Two hours of recitations or lectures and two hours of observatory work a week.*

59, 60. PRACTICAL ASTRONOMY.—The theory and use of the sextant, universal instrument, zenith telescope, transit, and equatorial. Open to students who have taken Mathematics 6, 7, 8, and Astronomy 10. *Three hours a week.* Not given in 1921-22.

62. HISTORY OF ASTRONOMY.—Lectures and recitations. *Two hours a week.* Given in 1920-21 and alternate years.

## BIBLICAL LITERATURE

DEAN STEVENS

1, 2. THE ENGLISH BIBLE.—A study of the English Bible as a masterpiece of literature, with the main object of familiarizing the student

with the content of the Bible itself, and with the use made of it by the great masters of English literature. *..Two hours a week.*

## BIOLOGY

PROFESSOR CHRYSLER; ASSOCIATE PROFESSOR BLAKE; ASSOCIATE PROFESSOR  
BATCHELDER; MR. LODEWICK; MR. REYNOLDS

GENERAL BIOLOGY.—Course 1, General Zoology, together with Course 2, General Botany, comprise a year's work in General Biology. After completing Courses 1 and 2 a student may specialize on either the botanical or the zoological side of biology. The science requirement in the College of Arts and Sciences may be met by taking Courses 1, 2, and 7.

1. GENERAL ZOOLOGY.—The fundamental principles of animal life, illustrated by examples from the principal groups, and including some work on the anatomy and physiology of higher animals. Required of students taking the Curricula in Agriculture and Forestry, and Pre-medical work. Class room, *two hours a week*; laboratory, †*four hours a week*.

2. GENERAL BOTANY.—The fundamental principles of plant life, illustrated by examples from the various groups, with special attention to the seed plants. Required of students taking the Curricula in Agriculture, Forestry, and Home Economics, and Pre-medical work. Pre-requisite, Course 1. Class room, *two hours a week*; laboratory, †*four hours a week*.

5. ELEMENTARY PHYSIOLOGY.—The anatomy, physiology, and hygiene of higher animals, especially applied to man. Required of students taking the Curriculum in Home Economics. Class room, *two hours a week*; laboratory, †*four hours a week*.

7. GENETICS.—A general treatment of the facts which form the basis of our knowledge of inheritance. Prerequisites, Courses 1 and 2. *Two hours a week.*

8. ENTOMOLOGY.—A study of the structure, life-histories, and classification of insects, illustrated by common farm and forest species; the special insect pests of field, garden, orchard, and forest, and of domestic animals; methods of control. Some work on animal parasites other than insects is included. Prerequisites, Courses 1 and 2. Class room, *two hours a week*; laboratory, †*four hours a week*.

9. PLANT TAXONOMY AND HISTOLOGY. 10. PLANT PHYSIOLOGY AND PATHOLOGY.—A combined course for one year for students in Agriculture, consisting of: practice in the identification of the higher plants; microscopic work on the cell, tissues, and organs of the higher plants; a study of the functions of plants, including nutrition, growth, and response; a study of the diseases of plants, especially those caused by fungi.

Prerequisites, Courses 1 and 2. Class room, *two hours a week*; laboratory, *†six hours a week*.

11. PLANT DISEASES.—A non-technical view of the subject designed for students who have had only General Biology. Class room, *two hours a week*; laboratory, *†two hours a week*.

17. WOOD IDENTIFICATION.—The identification of the various commercial woods by means of the unaided eye and the microscope. Open to students in Chemical Engineering, and to others by permission. *\*Three hours a week*.

51. VERTEBATE MORPHOLOGY.—An interpretation of the fundamental principles of structure, origin, and history of vertebrate organ systems. Particular emphasis is placed upon the anatomy of the cat and the fowl in the laboratory studies. Prerequisites, Courses 1 and 2. Class room, *two hours a week*; laboratory, *†four hours a week*.

52. ANIMAL EMBRYOLOGY.—A study of the fundamental principles of development, and the formation of organ systems and tissues in vertebrates. Laboratory work on fish, frog, and chick. Prerequisite, Course 51. Class room, *two hours a week*; laboratory, *†four hours a week*.

53. ADVANCED ANIMAL PHYSIOLOGY.—A study of the activities of cells and organ systems, with experimental work on the muscles, nerves, circulation, etc., in frog and man. Prerequisite, Course 51. Class room, *two hours a week*; laboratory, *†four hours a week*.

54. ANIMAL HISTOLOGY.—A study of the structure of protoplasm, cells, and tissues; practice in microscopical technique. Prerequisite, Course 51. Class room, *two hours a week*; laboratory, *†four hours a week*.

56. VERTEBATE ANATOMY.—A continuation of Course 51, with special reference to other vertebrate types, especially dogfish and a reptile. Prerequisite, Course 51. Laboratory, *†four to †eight hours a week*.

57, 58. ECONOMIC ENTOMOLOGY.—A further study of economic insects and entomological problems, varying according to the needs of the students. Prerequisite, Course 8. Laboratory, *†four to †eight hours a week*.

61. PLANT HISTOLOGY.—The microscopic structure of the higher plants; the cell; the various tissues; the root, stem, leaf, and spore-bearing organs; the adaptations of plants to external conditions, considered from the standpoint of structure; killing, sectioning, staining, and mounting of plant tissues. Prerequisites, Courses 1 and 2. Class room, *two hour a week*; laboratory, *†four hours a week*.

62. PLANT PHYSIOLOGY.—The plant is considered from the standpoint of its activities; absorption and transport of raw material; manufacture, transport, and storage of food; growth; movement in response

to stimuli. Prerequisite, Course 61. Class room, *two hours a week*; laboratory, †*four hours a week*.

63. PLANT TAXONOMY AND MORPHOLOGY.—The identification of seed-plants by the use of a manual; the structure and relationships of vascular plants from the evolutionary standpoint. Prerequisite, Course 61. Class room, field, and laboratory work; *time to be arranged*, giving four credit hours.

64. PLANT ECOLOGY.—Two aspects of the subject are presented: (1) physiographic ecology studied in the field as far as the season permits; (2) structural ecology, viz., the histological features characteristic of plants growing in extreme habitats, and of those having special modes of nutrition. Prerequisite, Course 9 or 61. Class room, *one hour a week*; laboratory, †*four hours a week*. Given in 1922 and alternate years.

66. FOREST PATHOLOGY.—The diseases of trees, especially those caused by fungi; destruction of timber by fungi; methods of combating plant diseases. Prerequisite, Course 61. Class room, *two hours a week*; laboratory, †*two hours a week*. Given in 1923 and alternate years.

67, 68. FOREST BOTANY.—A systematic study of the commercial trees of North America, with field study and identification of Maine representatives. Prerequisites, Courses 1 and 2. Class room, *two hours a week*; laboratory, †*four hours a week*.

71, 72. BIOLOGICAL SEMINAR.—Preparation and discussion of papers dealing with recent advances in zoology and botany. Open to seniors and graduate students. *One hour a week*.

73, 74. THESIS.—Students in the College of Agriculture specializing in biology may prepare a thesis on some subject approved by the head of the department. *Time varies*.

75, 76. ADVANCED ZOOLOGY.—This course offers an opportunity for special zoological work along lines suited to the future plans of the student. It may consist of field work, laboratory work, or reading, or a combination of all three. In general each student is given a problem for investigation and encouraged to devise methods for its solution. *The time varies* and the work may be continued a number of semesters.

77, 78. ADVANCED BOTANY.—This course offers an opportunity for special work in botany along lines best suited to the future plans of the student. It may consist of laboratory work, field work, or reading, or a combination of all three. *The time varies* and the work may be continued a number of semesters.

## CHEMISTRY

*The courses in this department are described under the College of Technology.*

The science requirement in the College of Arts and Sciences may be met by completing courses Ch 1-5, 2-6, (or 3-7, 4-8), Ch 17, and Ch 42.

Students taking chemistry as a major subject in the College of Arts and Sciences must complete satisfactorily not less than thirty hours in chemistry, including Ch 1-5, 2-6 (or 3-7, 4-8), 11, 40, 51, and 71.

The following work in chemistry has been announced for medical colleges of the first class:

Three years' preparation in chemistry will be required, including at least 240 hours of class room work and 500 hours of laboratory work. The former must include 60 hours in organic chemistry and a short course in physical chemistry, while the latter must include one year's work in quantitative analysis and 120 hours in organic chemistry.

## ECONOMICS AND SOCIOLOGY

PROFESSOR ASHWORTH; PROFESSOR PEABODY; ASSOCIATE PROFESSOR TOELLE;  
ASSISTANT PROFESSOR HOWARD

### I. Economics

1a. PRINCIPLES OF ECONOMICS.—An introductory course dealing with the general principles and problems of modern economic activity. It is the purpose of this course to lay the foundation for further study in economics and to give the students who do not take other courses in the subject an understanding of the economic structure of society and a knowledge of politico-economic problems which every educated person is supposed to have. For students in the College of Arts and Sciences this course is prerequisite for other courses in economics. Not open to freshmen. *Three hours a week.*

1b. ELEMENTARY PRINCIPLES OF ECONOMICS.—Similar to Course 1a except that no extended study is made of practical economic problems. For technical and agricultural students this course is prerequisite for other courses in economics unless Course 1a be taken. *Two hours a week.*

2a. PRINCIPLES OF ECONOMICS.—A continuation of Course 1a. *Three hours a week.*

2b. MODERN ECONOMIC PROBLEMS.—A continuation of Course 1b. Banking, insurance, the tariff, taxation, wage system, and industrial organization. *Two hours a week.*



7. GEOGRAPHY AND INDUSTRY.—A brief study of the resources of the countries of the world: agricultural, mining, forestry, fishing, and animal industries; means of transportation and communication; emphasis upon resources and production in the United States. *Two hours a week.*

8. AMERICAN COMMERCE.—The commercial relations of the United States with foreign countries: theory of foreign trade and tariff policies; modern organization and practices; credit and banking facilities; commercial treaties; special attention to trade with South American countries. *Two hours a week.*

9. ACCOUNTING.—This course aims to give the student that general knowledge of the principles of accounting which every business person should possess. Since this course does not presume any knowledge of bookkeeping a considerable part of the work is devoted to double entry bookkeeping. *Three hours a week.*

10. ACCOUNTING.—A continuation of Course 9. Partnership and corporation accounting; balance and income sheets; depreciation, reserve, sinking fund, and investment accounting; advanced forms of final statements; realization and liquidation. *Three hours a week.*

11, 12. BUSINESS LAW.—The legal principles of modern business; contracts, agency, corporations, partnerships, bailments, guaranty, and insurance. Juniors and seniors only. *Three hours a week.*

51. CORPORATION FINANCE.—The promotion, financing, incorporation, and capitalization of industrial corporations in the United States; the relations of stockholders and directors; stock speculation; receiverships and reorganizations. Juniors and seniors only. *Three hours a week.*

52. PUBLIC FINANCE.—Government activities and public revenue; tax systems with emphasis on existing systems and proposed reforms; government expenditures with emphasis on the budget system; the Maine system of taxation. Juniors and seniors only. *Three hours a week.*

59. INSURANCE.—The relation of insurance and risks to modern business organization; principles of life and property insurance; types of companies and policies; rate making; investment of insurance companies; legislation for the protection of policy holders. Juniors and seniors only. *Three hours a week.*

60. TRANSPORTATION.—The historical development of transportation in the United States; railway organization and combination; financing and rate making; federal and state regulation; government ownership and operation; railway policies of leading European countries. Juniors and seniors only. *Three hours a week.*

71. BUSINESS ORGANIZATION AND MANAGEMENT.—The production, structure, functions, and financing of business undertakings; significance of large scale production; economic and legal aspects of business com-



binations; business methods, system and efficiency; problems of business management. Juniors and seniors only. *Three hours a week.*

72. LABOR PROBLEMS.—The industrial revolution and the development of the modern conflict between capital and labor; history, aims, policies, and methods of trade unions; present day industrial problems: woman and child labor, immigration, wages, hours of labor, workingmen's insurance, and agencies of industrial peace. Juniors and seniors only. *Three hours a week.*

91, 92. JOURNAL CLUB.—Readings in journals and books outlined and directed for those qualified for the work. Readings assigned with reference to current economic and social problems. Restricted to those majoring in economics and sociology. *Two hours a week.*

## II. Sociology

55. GENERAL SOCIOLOGY.—Human life and its organization; the evolution of institutions; the laws and forces which are fundamental in society; some psychological phases of the subject. Prerequisite to other courses in sociology. Not open to freshmen. *Three hours a week.*

56. SOCIAL PATHOLOGY.—Application of sociological principles in the study of poverty and relief; criminality and its prevention; care of dependents and defectives. *Three hours a week.*

81. THE FAMILY.—An historical consideration of the origin and development of the family; the legal and economic relations of its members; its significance as an institution; its pathological manifestations. *Two hours a week.*

82. RURAL SOCIOLOGY.—The social problems of country life: isolation of rural communities; movement of the people to the city; social activities; agencies for the improvement of rural life: the school, the church, and other institutions and organizations. Open to students of the College of Agriculture without the usual prerequisite. *Two hours a week.*

97. IMMIGRATION AND AMERICANIZATION.—A history of immigration into the United States; the social, economic, and political aspects of immigration; agencies and methods of Americanizing the immigrant. Students who have had Economics 1 may by permission of the head of the department take this course without having had Course 55. Juniors and seniors only. *Two hours a week.*

98. SOCIAL REFORM PROGRAMS.—An analysis of the socialist indictment of the present economic system; the history of socialism with special reference to recent events; the history of other movements aiming to transform the social order: communism, government ownership, the single tax, etc. Students who have had Economics 1 may by permission of the

head of the department take this course without having had Course 55. Juniors and seniors only. *Three hours a week.*

### III. Political Science

61. AMERICAN GOVERNMENT.—The principles and interpretation of the federal government; emphasis on present day political problems which relate to fundamental principles of the American government. Prerequisite to other courses in political science. Not open to freshmen. *Three hours a week.*

62. GOVERNMENTS OF EUROPE.—A comparative study of the modern governments of the principal countries of Europe; party development and current problems national and local. Prerequisite to Courses 87 and 88. *Three hours a week.*

63. STATE AND LOCAL GOVERNMENTS.—Powers, rights, and obligations of the states in the Federal union; formation and admission of states; development of the state constitutions; organization of state and local governments; brief survey of the newer problems connected with state governments. *Three hours a week.*

64. POLITICAL PARTIES.—Origin, principles, organization, functions, and activities of political parties, primarily in the United States. *Three hours a week.*

87. AMERICAN DIPLOMACY.—The Department of State; diplomatic service; the treaty making power; the foreign policy of the United States; diplomatic controversies with foreign powers; the United States as a world power. Juniors and seniors only. *Three hours a week.*

88. INTERNATIONAL LAW.—Development, nature, source, and present status; development of internationalism. Juniors and seniors only. *Three hours a week.*

## EDUCATION

PROFESSOR POLLARD; ASSOCIATE PROFESSOR CHADBOURNE

### Historical Courses

51. HISTORY OF EDUCATION IN THE UNITED STATES.—Evolution of education, educational institutions, school systems, and practices of the American people. *Three hours a week.*

52. HISTORY OF EDUCATION.—Evolution of educational theory, institutions and practices of the Greek, Roman, and modern civilizations. *Three hours a week.*

53, 54. CONTEMPORARY MOVEMENTS IN EDUCATION.—The objects, methods, and influences of certain modern American and European schools representing advanced educational practices. *Two hours a week.*

### Theoretical Courses

21. INTRODUCTION TO EDUCATIONAL PSYCHOLOGY.—Principles of human behavior. The conscious and unconscious elements in the learning process. Required for Professional Certificate. *Three hours a week.*

25. PRINCIPLES OF EDUCATION.—The foundations of educational procedure, as based upon the modern sociological and psychological theories and research; formal and informal education. *Three hours a week.*

56. MENTAL TESTS.—A laboratory course in the methods and technique of mental tests, including practice of making mental tests and measurements. *Two hours a week.*

57. EDUCATIONAL PSYCHOLOGY.—The psychology of learning and its application to education; individual differences, mental inheritance, and mental ability. *Three hours a week.*

58. SCHOOL HYGIENE.—School architecture and equipment; heating, lighting, and ventilation; mental health of teacher and pupils; communicable diseases and the relation of school authorities to health authorities. *Two hours a week.*

71. PSYCHOLOGY OF SECONDARY EDUCATION.—A study of the adolescent age and of the general psychological principles which determine the scope and character of secondary education. *Three hours a week.*

72. PSYCHOLOGY OF HIGH SCHOOL SUBJECTS.—This course undertakes a psychological analysis of various high school courses as to their importance and organization; reasons for reorganization of some of these courses as discussed in recent educational writings. *Three hours a week.*

81. VOCATIONAL EDUCATION.—A survey of the recent rapid development of various organization, within and outside of the schools, for securing a more rational adjustment between education and the early vocational experience of young people as they leave the care of the school. *Two hours a week.*

90. EDUCATIONAL MEASUREMENT.—A critical discussion of the validity of the tests; principles of design and methods of construction; the use of standard tests to the administrator, to the teacher, and to school surveyors. *Two hours a week.*

91. PSYCHOLOGY OF ELEMENTARY EDUCATION.—A study of the physical and mental development of the child up to the adolescent period dealing with the mental processes involved in learning. *Three hours a week.*

92. PSYCHOLOGY OF ELEMENTARY SCHOOL SUBJECTS.—A study of the methods by which children learn to read, write, draw, spell, and grasp the meaning of other elementary subjects. *Three hours a week.*

113, 114. SEMINAR.—Research in Educational Psychology. *Three hours a week.*

### Practical Courses

27, 28. EDUCATIONAL PRACTICE.—A laboratory course in directed teaching, based upon the observation of, and participation in, activities of the high schools of Old Town and Orono. *Two to four hours a week.*

29, 30. SPECIAL METHODS.—Teachers' courses in the following subjects: a. English; b. French 57, 58; c. German 9, 10; d. Latin 8; e. Mathematics 63, 64; f. Spanish 56.

77, 78. METHODS OF TEACHING.—A general-methods course for prospective high school teachers. The course deals with the problems of the class room teaching. *Three hours a week.*

97, 98. CURRENT PROBLEMS IN EDUCATION.—Each member of the class is assigned a special problem. *Two hours a week.*

### Administration Courses

61. HIGH SCHOOL ADMINISTRATION.—This course deals with the practical problems of high school administration, including the high school, the elementary school, the junior high school, and the college. *Two hours a week.*

62. ADMINISTRATION AND SUPERVISION OF THE ELEMENTARY SCHOOLS.—A course for those who expect to become principals of elementary schools. It deals with the problems of organization and the purposes of the elementary schools. *Two hours a week.*

63. JUNIOR HIGH SCHOOL.—The development, place, and administration of the junior high school. *Two hours a week.*

64. STATE SCHOOL SYSTEMS.—A study of the principles of organization and of the typical agencies for the administrative control of American state educational systems. *Two hours a week.*

65. MUNICIPAL SCHOOL SYSTEMS.—A consideration of the organization, administration and problems of city school systems. *Two hours a week.*

94, 95. SCHOOL LAWS.—A critical study of the school laws in each state and of court decisions. *Two hours a week.*

103, 104. SEMINAR.—Educational Statistics. *Two hours a week.*

105, 106. SEMINAR.—Problems in Elementary School Education. *Three hours a week.*

110. THE JUNIOR COLLEGE.—The development, place, and administration of the junior college. *Two hours a week.*

111, 112. SEMINAR.—Problems in Secondary School Education. *Three hours a week.*

115, 116. SEMINAR.—Educational Administration. *Two hours a week.*

## ENGLISH

PROFESSOR ELLIS; ASSOCIATE PROFESSOR WHALER; ASSISTANT PROFESSOR McCULLOCH; MR. CHASMAN; MRS. CHASMAN; MISS KELLOGG; MISS BRAGG; MR. FLEWELLING; MR. CREAMER; MISS BEATHAM

Eh 1, 2, Freshman Composition and Rhetoric, is prescribed for all freshmen and is prerequisite for all other courses in English except Eh 28.

All students intending to do major or minor work in English are required to take Eh 3, 4 in the sophomore year. They are also advised to elect English History, and elementary German if they have not had it in high school, in the freshman or sophomore year. Requirements or recommendations for other groups of students are the following:

For all students in the College of Arts and Sciences, one of the survey courses in literature, Eh 3, 4, or Eh 13, 14 (see description of these courses below), is required in the sophomore year.

For all students in the College of Technology, Eh 9 or 10, Modern Literature, is required in the junior year if Pb 3, 4 is not elected in its stead; and in the senior year Eh 5 or 6, Technical Composition.

For all students in Forestry, Eh 5, Technical Composition, is required in the fall semester, and Eh 10, Modern Literature, in the spring semester, of the sophomore year.

For all students in Home Economics, Eh 3, 4, History of English Literature, is required in the sophomore year.

For all other students in the College of Agriculture, Eh 5 or 6, Technical Composition, is required in the junior year. Students in the Biology Curriculum also take Eh 10, Modern Literature, in the spring semester of the junior year.

1, 2. FRESHMAN COMPOSITION AND RHETORIC.—The object of this course is to give training in the use of clear and correct English, both oral and written. The theoretical work includes the study of the fundamental principles of good usage and of the expository, descriptive, and narrative forms of composition, with some attention to argumentation. Model prose selections are studied. Weekly themes and longer essays, with outlines, are required, and conferences based upon the written work. Prescribed for all freshmen. *Two hours a week.*

3, 4. HISTORY OF ENGLISH LITERATURE.—A survey of the literature from its beginning to the end of the nineteenth century. Lectures and



recitations based upon the direct study of selections from the chief English poetry and prose. Written reports on assigned topics. Prerequisite for all advanced courses in English literature. *Three hours a week.*

5, 6. TECHNICAL COMPOSITION.—Business correspondence, reports and summaries of investigation, and preparation of manuscript for theses and technical journals. The study of model prose selections based upon the business life is included. Required of students in the Colleges of Agriculture and Technology as above indicated. *Two hours a week*, fall or spring semester. Not open to students in Arts and Sciences.

7, 8. ADVANCED COMPOSITION.—A course designed to meet the needs of students who have passed Eh 1, 2 with a grade of C or better and desire to continue practice in writing for literary or practical purposes. *Two hours a week.*

9, 10. MODERN LITERATURE.—A study of representative short-stories, novels, essays, poetry, and plays of the last hundred years, with the design of cultivating the appreciation and enjoyment of good literature. Reports and criticisms of the works read are written. Open to all students in the Colleges of Agriculture and Technology who have completed Eh 1, 2. *Two hours a week*, fall or spring semester.

11, 12. COMPOSITION AND RHETORIC.—A continuation course for those who, having completed Eh 1, 2, feel the need of further practice in writing. *Two hours a week.* Not given in 1921-1922.

13, 14. ENGLISH LITERATURE FROM 1550 TO 1900.—A survey of English literature from the age of Shakespeare to the close of the nineteenth century. Lectures and recitations based upon the direct study of selections from the chief English poetry and prose in the periods included. Written reports on assigned topics. For sophomores majoring in Economics and Sociology. *Two hours a week.*

15, 16. BUSINESS CORRESPONDENCE.—An elective course, primarily for major students in Economics. The main object of the course is to acquaint students with the use of correct and forceful English for business purposes. Prerequisite, Eh 13, 14 (or Eh 3, 4). *Two hours a week*, fall or spring semester.

18. ENGLISH LITERATURE FOR FRESHMEN.—An elective course for freshmen in the College of Technology who have passed Eh 1. Rapid reading and study of worthy examples of English Literature. *Three hours a week.*

22. THE TEACHING OF ENGLISH.—Study of selected classics from the point of view of the teacher. Discussion of topics connected with the teaching of English in the secondary schools. *Two hours a week.*

23, 24. JOURNALISTIC COMPOSITION.—A fundamental course in news writing: the seeing of stories that have unique interest, developing news



and feature stories, and cultivating an effective journalistic style. *Two hours a week.* Not given in 1921-1922.

27, 28. PRACTICAL JOURNALISM.—The practical work in this course consists in editing or reporting for the *Maine Campus*, the university newspaper. The class hour is devoted to lectures on general newspaper usage and criticism of the work of the members of the class. *One hour a week.*

37, 38. VICTORIAN POETS.—In the fall semester Tennyson and Browning are studied; in the spring, Arnold and the later Victorians, with some consideration of the more recent British poets. A study of selected poems with extensive assigned reading. *Two hours a week.* Not given in 1921-1922.

43, 44. AMERICAN LITERATURE.—A survey course, based upon the study of the chief works of American poets and prose writers. Lectures, recitations, assigned reading, and written reports. *Three hours a week.*

47, 48. ENGLISH PROSE FICTION.—Primarily a reading course, designed to familiarize the student with the greater masterpieces in the English novel and short-story of the last three centuries. *Two hours a week.* Not given in 1921-1922.

*For the courses which follow, Eh 3, 4, History of English Literature, is prerequisite.*

51. ANGLO-SAXON.—A study of Anglo-Saxon grammar and reading of easy prose and poetry. Lectures on the literature of the Anglo-Saxon period. This course is recommended for those intending to teach English or to proceed to graduate study in the subject. *Three hours a week.* Not given in 1921-1922.

52. BEOWULF.—This course supplements Eh 51 with a study of the earliest English epic. Attention is given to metrical, literary, and linguistic qualities and to the historical background. *Three hours a week.* Not given in 1921-22.

53, 54. CHAUCER.—A study of the *Canterbury Tales* and the chief minor poems, stressing the reading of Chaucer as poetry, his literary range and qualities, and the picture of his time given in his works. Some earlier and contemporary Middle English works are also studied for the literary and linguistic background. *Three hours a week.*

55, 56. NINETEENTH CENTURY POETRY.—In the first half the poetry of the English Romantic movement is chiefly considered; in the second the poetry of the Victorian Age and the later period. *Three hours a week.*

57, 58. SHAKESPEARE.—A brief consideration of the English drama prior to Shakespeare, followed by a careful study of several of his most important plays and the reading of others. Some attention is given to Elizabethan stage conditions and the dramatic work of his contemporaries. *Three hours a week.*

59. ENGLISH LITERATURE FROM 1790 TO 1830.—A study of the literature of the romantic and revolutionary movements, the early realistic reaction, the rise of periodical literature, and the social and political influences which affected the writers of the first quarter of the nineteenth century. *Three hours a week.* Not given in 1921-1922.

60. ENGLISH LITERATURE FROM 1830 TO 1870.—The literary and scientific movements of the era, the Victorian novelists, tractarianism, pre-Raphaelitism, the greater poets, imperialism, and the later realists and romancers. *Three hours a week.* Not given in 1921-1922.

61, 62. HISTORY OF THE ENGLISH DRAMA.—The development of the drama in England from the miracle and mystery plays through the Elizabethan period, and the later tendencies in the Restoration drama, the eighteenth century, the nineteenth century closet drama, and the revival of the acting play in England, Ireland, and America. *Three hours a week.*

63. SIXTEENTH CENTURY LITERATURE.—Non-dramatic poetry and prose, including selected writings from the works of Wyatt, Surrey, Gascoigne, Lyly, Spenser, Shakespeare, Ben Jonson, and others. *Two hours a week.*

64. SEVENTEENTH CENTURY LITERATURE.—This course follows Course 63 and deals with writings from the works of Bacon; Cavalier and Puritan poets; Herrick, Milton, and Bunyan. *Two hours a week.*

65. RESTORATION LITERATURE.—The temper of the Restoration period as reflected in the literature; the Restoration drama; the significance of Dryden's work; political satire; the rise of modern prose; the standards of classicism in poetry. *Three hours a week.* Not given in 1921-22.

66. EIGHTEENTH CENTURY LITERATURE.—The school of Pope and the beginnings of romanticism; the rise of the essay and the beginnings of periodical literature; the rise of the novel; the political, social, and religious influences; the poetry of Burns. *Three hours a week.* Not given in 1921-1922.

67. OUTLINE HISTORY OF THE ENGLISH LANGUAGE.—The descent and relationships of the English language; the successive periods of foreign influence; the sources and character of the English dialect. Recommended for prospective teachers in English. *Two hours a week.*

68. FORMS AND TYPES OF ENGLISH POETRY.—A study of the different metrical forms in English verse and of the ballad, sonnet, lyric, and other common types. *Two hours a week.* Not given in 1921-1922.

69, 70. THE EIGHTEENTH AND NINETEENTH CENTURY ESSAY.—Among the writers of the eighteenth century, Addison, Swift, Johnson, Goldsmith, and Burke are studied; among those of the nineteenth, Lamb, DeQuincy, Macaulay, Carlyle, Ruskin, Arnold, and Stevenson. *Two hours a week.*

71, 72. AMERICAN LITERATURE.—An advanced course. *Three hours a week.*

101, 102. SEMINAR.—The subject is determined by the needs of the students in attendance. For the spring semester of 1922 it is "American Poetry since 1865."

## FRENCH

PROFESSOR SEGALL; ASSOCIATE PROFESSOR KUENY; MISS BUZZELL

1, 2. ELEMENTARY FRENCH.—Grammar, pronunciation, composition, conversation, translation. *Five hours a week.*

3, 4. INTERMEDIATE FRENCH.—Grammar, pronunciation, composition, conversation, translation. Open to students who have taken Courses 1 and 2, or an equivalent. *Three hours a week.*

3a. INTERMEDIATE FRENCH.—Equivalent of Courses 3 and 4. Open to students who have taken Courses 1 and 2, or an equivalent. *Five hours a week.*

4a. ADVANCED FRENCH.—A continuation of Course 3a. Equivalent of Courses 5 and 6. *Five hours a week.*

5, 6. ADVANCED FRENCH.—Pronunciation, composition, conversation, rapid reading of modern authors. Open to students who have taken Courses 3 and 4, or an equivalent. *Three hours a week.*

7, 8. ELEMENTARY CONVERSATION AND COMPOSITION.—Open to students who have taken Courses 1 and 2, or an equivalent. *Two hours a week.*

9, 10. ADVANCED CONVERSATION AND COMPOSITION.—Open to students who have taken Courses 7 and 8, or an equivalent. *Two hours a week.*

53. THE NOVEL IN THE NINETEENTH CENTURY.—The Romantic Period: Madame de Staël, Chateaubriand, Victor Hugo, Dumas père, De Vigny, Stendhal, George Sand, Balzac, Mérimée, Gautier. Lectures, recitations, themes. Open to students who have taken Courses 5 and 6. *Two hours a week.*

54. THE NOVEL IN THE NINETEENTH CENTURY.—The Realistic Period: Feuillet, Flaubert, Edmond et Jules de Goncourt, Daudet, Zola, Maupassant, Anatole France, Loti, Bourget. Lectures, recitations, themes. Open to students who have taken Courses 5 and 6. *Two hours a week.*

55. THE DRAMA IN THE NINETEENTH CENTURY.—The Romantic Period: Dumas père, Victor Hugo, Alfred de Vigny, Alfred de Musset, Scribe. Lectures, recitations, themes. Open to students who have taken Courses 5 and 6. *Two hours a week.*

56. THE DRAMA IN THE NINETEENTH CENTURY.—The Realistic Period: Augier, Dumas fils, Labiche, Meilhac et Halévy, Sardou, Pailleur, Henry Becque, Georges de Porto-Riche, Paul Hervieu, Maurice Donnay, Jules Lemaitre, François de Curel, Eugène Brieux, Henri Lavedan, Coppée, Rostand. Lectures, recitations, themes. Open to students who have taken Courses 5 and 6. *Two hours a week.*

57, 58. HOW TO TEACH FRENCH.—A teachers' course. Lectures, recitations, practical exercises. Open to students who have taken Courses 9 and 10, or an equivalent. *Two hours a week.* Given in 1921-22 and alternate years.

59, 60. HOW TO WRITE FRENCH.—An advanced course in French composition. Open to students who have taken Courses 9 and 10, or an equivalent. *Two hours a week.* Given in 1922-23 and alternate years.

101, 102. OLD FRENCH.—The historic development of the French language and literature from the origins to the Renaissance. The national epic; the epic of antiquity; romances of love and courtesy. Lyric poetry. Renard the Fox. Fabliaux. The Romance of the Rose. The chroniclers: Villehardouin, Joinville, Froissart, Commines. Latest medieval poets: Charles d'Orléans, Villon. The theatre. Lectures, recitations, themes. Open to students who have taken two courses in French literature. *Three hours a week.* Given in 1921-22.

103. THE SIXTEENTH CENTURY.—Renaissance and Reformation Clément Marot, Rabelais, Calvin. The Pléiade and Ronsard. The theatre. The Protestant poets: Du Bartas, d'Aubigné. Montaigne. Memoirs, historians, and political writers. Lectures, recitations, themes. Open to students who have taken two courses in French literature. *Three hours a week.* Given in 1922-23.

105, 106. THE SEVENTEENTH CENTURY.—The Hotel de Rambouillet and the Précieux school. Balzac. Descartes. The Jansenists, Port-Royal, Pascal. The Drama: Corneille, Molière, Racine. Madame de Sévigné, Madame de Lafayette, La Rochefoucauld. The Burlesque: Scarron, La Fontaine, Boileau. The Churchmen: Bossuet, Bourdaloue, Massillon, Fénelon. La Bruyère. Lectures, recitations, themes. Open to students who have taken two courses in French literature. *Two hours a week.*

109, 110. THE EIGHTEENTH CENTURY.—Memoirs and history; poetry; the theatre; the novel. Beyle, Fontenelle, Montesquieu, Vauvenargues, Voltaire, Diderot and the Encyclopedia, philosophers, economists, critics. Buffon, Rousseau, Bernardin de Saint-Pierre, Beaumarchais, André Chénier. The Revolution. Lectures, recitations, themes. Open to students who have taken two courses in French literature. *Two hours a week.*

112. THE POETRY OF THE NINETEENTH CENTURY.—The historic development of the poetry of the century; a close and detailed literary

study of representative poems. Béranger, Lamartine, Victor Hugo, Alfred de Vigny, Alfred de Musset, Gautier, Baudelaire, Leconte de Lisle, Sully-Prudhomme, Hérédia, Coppée, Richépin, Verlaine, Henri de Régnier, Moréas, Rodenbach, Verhaeren. Lectures, recitations, themes. Open to students who have taken two courses in French literature. *Three hours a week.* Given in 1922-23.

## GENERAL LECTURE COURSE

The College of Arts and Sciences of the University of Maine has arranged a series of weekly lectures of a popular nature, along the lines of work connected with the departments in that college.

Courses of lectures have been scheduled as follows:

1921-22 History and Economics; Physics and Mathematics.

1922-23 Ancient Civilization and Latin; Chemistry.

1923-24 English; Education and Philosophy.

1924-25 German and Romance Languages; Biology.

These courses will be repeated in the same order.

In 1921 a course of fifteen lectures each semester is being given by the Departments of History and Economics, and Physics and Mathematics.

Registration for this course is open to all students in the University and proper credit is given for its completion. The lectures are open to the public and are without charge.

## GEOLOGY

*The courses in this department are described under the College of Agriculture.*

## GERMAN

PROFESSOR DRUMMOND; ASSISTANT PROFESSOR CARRINGTON

1, 2. FIRST YEAR GERMAN.—A course for beginners. Grammar, composition, translation, conversation. *Five hours a week.*

3, 4. SECOND YEAR GERMAN.—For students who have had Courses 1, 2 or equivalent. Translation, composition, grammar review. *Three hours a week.*

5, 6. THIRD YEAR GERMAN.—For students who have had Courses 3, 4 or equivalent. A course in German literature including the reading of texts of the eighteenth and nineteenth centuries and lectures. *Three hours a week.*

7, 8. FOURTH YEAR GERMAN.—For students who have had Courses 7, 8 or equivalent. Critical reading of standard works, principally from the nineteenth century literature; lectures; essays. *Three hours a week.*



9. **TEACHERS' COURSE.**—For those who intend to teach German. Discussion of methods of teaching, the value of different texts, preparation of the lesson, class-room work, pronunciation, word-derivation, historical grammar. *Two hours a week.*

10. **HISTORY OF GERMAN LITERATURE.**—An outline sketch of the history of German literature. Recitations, outside reading, lectures. *Two hours a week.*

13, 14. **ELEMENTARY GERMAN COMPOSITION AND CONVERSATION.**—For students who have had Courses 3, 4 or equivalent. *Two hours a week.*

15, 16. **SCIENTIFIC GERMAN.**—Open only to students whose previous study of German will enable them to read scientific German with profit. *Two hours a week.*

17, 18. **ADVANCED GERMAN CONVERSATION AND COMPOSITION.**—For students who have had Courses 13, 14. *Two hours a week.*

51, 52. **STUDIES IN EIGHTEENTH CENTURY LITERATURE.**—Special attention is given to the life and works of Klopstock, Lessing, Wieland, Goethe, Schiller. Critical study of different works, lectures, discussions. *Two hours a week.* Given in 1919-20 and alternate years.

53, 54. **FAUST.**—The history and development of the Faust legend, the influence of the Faust idea, critical study of Goethe's Faust. *Two hours a week.* Given in 1920-21 and alternate years.

55, 56. **STUDIES IN NINETEENTH CENTURY LITERATURE.**—The various literary movements of the nineteenth century, lectures, discussions, outside reading. *Two hours a week.*

57, 58. **SEMINAR.**—A study of some special topic in German literature. *Two hours a week.*

101, 102. **GOTHIC, INTRODUCTION TO THE STUDY OF GERMANIC PHILOLOGY.**—Historical grammar, word-derivation, translation. *Two hours a week.* Given in 1919-20 and alternate years.

103, 104. **OLD HIGH GERMAN.**—A study of the grammar and translation from the different dialects of this period; word development in relation to present-day language; discussion of sound changes. *Two hours a week.* Given in 1920-21 and alternate years.

105, 106. **MIDDLE HIGH GERMAN.**—A study of the grammar and its relation to modern German grammar; reading of such texts as Nibelungenlied, Walther von der Vogelweide, Hartmann von Aue; lectures on the literature of this period. *Two hours a week.*



## HISTORY

PROFESSOR COLVIN; ASSISTANT PROFESSOR WHITMORE, SUPERVISOR OF FRESHMAN WORK; MR. DOUGALL

For Ancient Civilization and History of The Near East see Courses 1, 2 and 55, 56 in the Department of Ancient History and Art. Those courses are given credit in this department.

1. MEDIEVAL HISTORY.—A general course covering the period from the third century to 1500. Not open to freshmen. *Three hours a week.*

2. MODERN HISTORY.—Continuation of Course 1 to 1815, closing with a rapid sketch from 1815. Not open to freshmen. *Three hours a week.*

3. HISTORY OF ENGLAND.—From early times to the beginning of the Stuart period. Not open to freshmen. *Two hours a week.*

4. HISTORY OF ENGLAND.—Continuation of Course 3. From the beginning of the Stuart period to the present. Not open to freshmen. *Two hours a week.*

5. RECENT HISTORY.—This course is a general view from 1870. It is open to students from the Colleges of Technology and Agriculture only. *Two hours a week.*

6. EUROPEAN HISTORY SINCE 1815.—This course is open only to students who have had Courses 1 and 2 or 3 and 4. *Two hours a week.*

7, 8. UNITED STATES HISTORY AND GOVERNMENT.—This course begins with the close of the Revolution. It is open to freshmen only, and credit is not given except for a full year's work. *Three hours a week.*

9. HISTORY OF THE UNITED STATES.—The period from 1783 to 1865. This course is for upper class students who have not had Courses 7 and 8. *Two hours a week.*

10. HISTORY OF THE UNITED STATES.—A continuation of Course 9 from 1865 to the present time. *Two hours a week.*

51. THE RENAISSANCE.—This course takes up the Renaissance as an intellectual and social movement in Italy, and its expansion into France, England, and Germany. *Three hours a week.*

52. THE REFORMATION.—This course follows Course 51 and the two are always given the same year. *Three hours a week.*

In connection with Courses 51 and 52, students are recommended to take Course 10 in the Department of Ancient History and Art.

53. MODERN CONTINENTAL EUROPE.—Study of a selected period since the Peace of Utrecht. *Three hours a week.*

54. MODERN ENGLAND.—Study of a selected period since the accession of the House of Hanover. *Three hours a week.*

55, 56. UNITED STATES HISTORY.—Studies of special periods, or of special phases of the development of American civilization. *Three hours a week.*

57, 58. HISTORICAL CRITICISM.—*One hour a week.*

59. SOCIAL AND INDUSTRIAL HISTORY OF ENGLAND.—This course begins with the medieval manor and comes down to the present time. *Two hours a week.*

60. SOCIAL AND INDUSTRIAL HISTORY OF THE UNITED STATES.—This course begins with early colonial history.

Courses 59 and 60 are planned in connection with courses in Economics and Sociology.

## LATIN

PROFESSOR CHASE

1. LIVY.—Selections from Livy, History of Rome. *Three hours a week.*

2. CICERO AND HORACE.—Cicero, De Senectute; Horace, Odes and Epodes. *Three hours a week.*

3. LATIN COMPOSITION, WITH REVIEW OF LATIN SYNTAX.—*One hour a week.*

4. LATIN COMPOSITION.—A continuation of 3. *One hour a week.*

5. TACITUS.—Reading and discussion of the Agricola and Germania. *Three hours a week.*

6. TERENCE AND PLAUTUS.—The Phormio of Terence; the Captivi and Trinummus of Plautus; study of early Latin and the development of Roman comedy. *Three hours a week.*

8. TEACHERS' COURSE.—Discussions of topics connected with the teaching of Latin in secondary schools. Study of selected passages of Cæsar, Cicero, and Vergil. *Two hours a week.*

9. CICERO.—Speeches against Catiline, for the Manilian Law, and Archias. Open to students who have completed two years' study of Latin in high school. *Five hours a week.*

10. VERGIL.—Aeneid, books i-vi. Open to students who have had less than four years of high school training. *Five hours a week.*

51. LATIN COMPOSITION.—Practice in writing Latin; study of Latin syntax. *One hour a week.*

52. LATIN COMPOSITION.—Practice in writing Latin; study of Latin rhetoric. *One hour a week.*

53. THE YOUNGER PLINY.—Reading of selected letters of Pliny; the Roman Empire. *Three hours a week.*

54. HORACE AND JUVENAL.—Reading of selections from the great satirists; study of Roman satire and social life. *Three hours a week.* Given in alternate years.

55. TACITUS.—Reading of the *Annales* and study of the reign of Tiberius. *Three hours a week.* Given in alternate years.

56. THE ROMAN ELEGIAIC POETS.—Selections from Catullus, Tibullus, Propertius, and Ovid; study of elegaic poetry. *Three hours a week.* Given in alternate years.

57, 58. ROMAN PHILOSOPHY.—Reading from Cicero's philosophical writings and from Lucretius; discussion of the leading schools of ancient philosophy. *Three hours a week.* Given in alternate years.

59, 60. ROMAN RHETORIC AND ORATORY.—Quintilian (selections from the *Institutio Oratoria*); Tacitus (*Dialogus de Oratoribus*); Cicero (selections from the *Brutus*, *De Oratore*, and *Orator*). Open to students who have taken Courses 1-4. *Three hours a week.* Given in alternate years.

103, 104. THE LATIN LANGUAGE.—A discussion of the fundamental principles of linguistic growth and change and of the relationship of Latin to other languages; Latin phonetics; the development of inflectional forms in Latin. Lectures and recitations. *One hour a week.* Given in alternate years.

105. ROMAN NUMISMATICS.—Practice in the use of coins as original sources for the study of history, mythology, archeology, etc. *One hour a week.* Given on sufficient demand.

107. SANSKRIT.—An elementary course in the classical language of India, with especial reference to the light it throws upon the history and grammar of the languages of Europe. *Two hours a week.* Given when asked for by a sufficient number of students.

108. SANSKRIT.—A continuation of Course 107, with more attention to the classical literature of India. *Two hours a week.*

## MATHEMATICS

PROFESSOR HART; PROFESSOR WILLARD; ASSOCIATE PROFESSOR HILL; MR. LUCAS; MR. BEALE; MR. LORING; MR. BROWN

Students electing mathematics as a major subject are expected to take Courses 1, 2, 3, 5, 6, 7, 8 and to elect other courses to a total of forty semester hours. Courses in Astronomy 10, 15, 16, and 57, and Mechanics 51 and 52 may be taken as mathematics electives. Students majoring in mathematics and intending to teach are also advised to take several courses in physics.

1. TRIGONOMETRY.—The trigonometric functions; radian measure; functions of two or more angles; logarithms; solution of right and oblique triangles; trigonometric equations; inverse functions. *Five hours a week. First ten weeks.*

2. SOLID GEOMETRY.—Solid and spherical geometry, including original demonstrations and the solutions of numerical problems. *Three hours a week. Open to all freshmen who did not offer it for admission.*

3. COLLEGE ALGEBRA.—A brief review of radicals, the theory of exponents, quadratic equations, and the binomial theorem; determinants; theory of equations. *Five hours a week. Last eight weeks.*

4. SPHERICAL TRIGONOMETRY.—The elements of this subject with problems and applications to spherical astronomy. *Two hours a week.*

5. ADVANCED ALGEBRA.—Topics in college algebra not covered in Course 3. Open to students who have taken Courses 1, 2, and 3, and to freshmen with especially good high school preparation. *Three hours a week.*

6. ANALYTIC GEOMETRY.—The point, line, circle, and conic sections; higher plane curves; elements of solid analytic geometry. Open to students who have had Courses 1 and 3 and the equivalent of Course 2. *Five hours a week.*

7. CALCULUS.—Differentiation of the elementary forms of algebraic and transcendental functions; successive differentiation; differentials; rates; maxima and minima. Open to students who have taken Courses 1, 2, 3, and 6. *Five hours a week.*

8. CALCULUS.—A continuation of Course 7. Integration of the elementary forms; integration as a summation; various methods of integration. Applications of differential and integral calculus. *Five hours a week.*

11. TRIGONOMETRY FOR AGRICULTURAL STUDENTS.—A course essentially equivalent to Course 1. *Three hours a week.*

12. APPLICATIONS OF TRIGONOMETRY.—A course given for students in Agriculture and Forestry, and open to others who have taken Course 1 or 11. Further practice in the solution of problems with applications to plane surveying. *Two hours a week.*

13. DIFFERENTIAL AND INTEGRAL CALCULUS.—A course given for students in Chemistry and for those in the College of Arts and Sciences who desire only a brief course in this subject. *Three hours a week.*

14. DIFFERENTIAL AND INTEGRAL CALCULUS.—A continuation of Course 13. *Two hours a week.*

17. MATHEMATICAL THEORY OF INVESTMENT.—A study of the progressions and the binomial theorem, logarithms and the graphical representation of functions with a view to their application to the theory of

investment. Also a study of interest, both simple and compound, present value, discount, and annuities. Thruout the course, numerous problems are solved to illustrate the theory and to fix the principles involved. *Three hours a week.*

18. MATHEMATICAL THEORY OF INVESTMENT.—A continuation of Course 17. A course in which one considers amortization, the valuation of bonds, sinking funds and depreciation, building and loan associations; also the theory of probability and its application to life annuities and certain problems connected with life insurance. *Three hours a week.*

19, 20. THE THEORY OF STATISTICS.—A study of the theory of statistics and the application of statistical methods. *Two hours a week.*

21. SOLID GEOMETRY.—The equivalent of Course 2 but given in the fall semester.

51. ADVANCED ANALYTIC GEOMETRY.—A course for students who have completed Courses 5, 6, 7, and 8. *Three hours a week.* Given in 1922-23 and alternate years.

52. SOLID ANALYTIC GEOMETRY.—*Three hours a week.* Given in 1922-23 and alternate years.

53. ADVANCED CALCULUS.—This course is varied from time to time by using different texts. Open to students who have taken Courses 6, 7, and 8. *Three hours a week.* Given in 1921-22 and alternate years.

54. ADVANCED INTEGRAL CALCULUS.—A continuation of Course 53. *Three hours a week.* Given in 1920-21 and alternate years.

56. DIFFERENTIAL EQUATIONS.—Open to students who have taken Courses 7, 8. *Two hours a week.*

61. HISTORY OF MATHEMATICS.—Lectures and recitations. *Two hours a week.* Given in 1920-21 and alternate years.

63, 64. TEACHERS' COURSE IN MATHEMATICS.—A critical study of the methods of teaching high school mathematics, together with an investigation of fundamental principles. *Three hours a week.* Given in 1922-23 and alternate years.

65. THEORY OF EQUATIONS.—*Three hours a week.* Not given in 1921-22.

66. MODERN PROJECTIVE GEOMETRY.—A course based upon Oswald Veblen's text "Projective Geometry."

101. THEORY OF FUNCTIONS OF A COMPLEX VARIABLE.—An elementary course in the treatment of analytic functions. The course includes a consideration of infinite series, both single and double, infinite products, conformal representation, and a brief application of the theory to Fourier's series, the gamma, beta, and Bessel functions, and spherical harmonics. *Three hours a week.*



102. ELLIPTIC FUNCTIONS.—The Weierstrass and Jacobi functions. A brief treatment of transformation theory, and numerous examples. *Three hours a week.*

103. MODERN ANALYTIC GEOMETRY.—Homogeneous coördinates, ideal elements, principle of duality, and an analytic treatment of the straight line and the conics. *Three hours a week.* Not given in 1921-22.

104. MODERN ANALYTIC GEOMETRY.—A continuation of Course 103. *Three hours a week.* Not given in 1921-22.

105. THERMODYNAMICS.—The subject is considered more from a mathematical than from a physical standpoint. The subject is developed from fundamental principles, and is extended to systems of a more general character than those usually considered. *Three hours a week.* Not given in 1921-22.

106. THERMODYNAMICS.—A continuation of Course 105. *Three hours a week.* Not given in 1921-22.

109. CELESTIAL MECHANICS.—An elementary course in the planetary theory. *Three hours a week.* Not given in 1921-22.

110. HYDRODYNAMICS.—The subject is treated in such a way as not to require the use of spherical harmonics. The course includes a brief treatment of some of the problems of motion in a fluid, including wave motion and rectilinear vortex motion. *Three hours a week.* Not given in 1921-22.

115. FOURIER'S SERIES AND SPHERICAL HARMONIC ANALYSIS.—Solution of partial differential equations of mathematical physics under assigned boundary conditions.

116. THEORY OF AGGREGATES AND SELECTED TOPICS ON THEORY OF FUNCTIONS OF REAL VARIABLES.

117. THEORY OF SUBSTITUTION GROUPS AND OF ALGEBRAIC FIELDS.

118. THEORY OF TRANSFORMATION GROUPS (LIE THEORY).

## MUSIC

DIRECTOR SPRAGUE

3, 4. MUSIC APPRECIATION.—A study of the masterpieces of music from the standpoint of the listener. Analytical rather than historical. The vital forces and personalities in the development of the art noted briefly, but the chief stress laid upon the music itself. The evolution of form traced from the folk-song to the symphony. Lectures, illustrations, prescribed readings, reports. *Two hours a week.*

5, 6. INTRODUCTORY HARMONY.—The grammar of music, basic to an understanding of music structure. The foundation of the art of com-



position. A study of the conditions under which tones sound together and progress in combination. The invention and harmonization of melodies. A knowledge of notation required. *Two hours a week.*

7, 8. ADVANCED HARMONY.—Supplementary to Course 5, 6 and designed to apply to the more advanced problems of tone combination the training already obtained. Emphasis placed upon harmonic analysis, melody writing, and composition in the simpler forms. *Two hours a week.*

9, 10. COUNTERPOINT.—The art of combining melodies. A correlative with Harmony as the material of composition. Freedom and facility of expression in all the forms of music writing developed through its study and practice. Original work the chief aim of the course. Course 5, 6 a prerequisite. *Two hours a week.*

51. INTERPRETATION AND CONDUCTING.—A consideration of the problems of organizing bodies of singers and players; of time-beating; of program building; and of interpretation as applied to the rehearsal and performance of choral and orchestral music. Membership in the university chorus, orchestra, or band a prerequisite. Open to juniors and seniors of sufficient talent. *One hour a week.*

## PHILOSOPHY

PROFESSOR CRAIG

49a. PSYCHOLOGY.—Anatomy and physiology of the nervous system and sense organs. Psychology of sensation, instinct, habit, emotion, attention, memory, imagination, reasoning, will. To be followed by Course 50. *Three hours a week.*

49b. PSYCHOLOGY.—Similar to Course 49a, but leading to Course 60 instead of to Course 50. *Three hours a week.*

50. GENETIC PSYCHOLOGY.—Child study; development of mental functions; psychology of interest and of learning; applications in school teaching, in the training of children in the home, and in self-education. Required of students in Home Economics. Course 49a is prerequisite. *Three hours a week.*

60. APPLIED PSYCHOLOGY.—Studies of human efficiency, work and rest, effect of environmental conditions. Psychology applied in business, industry, government, medicine, and other fields. Recommended for students of economics, political science and law. Course 49b is prerequisite. *Three hours a week.*

61. APPLIED PSYCHOLOGY.—Similar to Course 60, but given for students in the College of Technology, without prerequisites. *Three hours a week.*

## PHYSICS

PROFESSOR STEVENS; PROFESSOR FITCH; ASSISTANT PROFESSOR DAWSON;  
MR. BLESS; MR. GOULD

1, 2. GENERAL PHYSICS.—A course covering mechanics, heat, sound, magnetism, and electricity. Lectures and recitations. *Four hours a week.*

3, 4. LABORATORY PHYSICS.—A course covering mechanics, heat, sound, light, and electricity. Special attention is given to the reduction of observations and the tabulation of results. Open to students taking either Courses 1 and 2 or Courses 5 and 6. †*Two hours a week.*

5, 6. GENERAL PHYSICS.—A course covering the ground of Courses 1 and 2 with more attention to the experimental and historical aspects, and less to the mathematical. *Three hours a week.*

8. HOUSEHOLD PHYSICS.—A course planned to meet the needs of students in Home Economics. Recitations, *four hours a week*; laboratory work, †*two hours a week.*

9. METEOROLOGY.—A course covering the essential principles of the subject including a study of instruments and weather predictions. *Three hours a week.*

10. METEOROLOGY.—A repetition of Course 9. *Three hours a week.*

11. METEOROLOGY.—A continuation of Course 9 dealing with special topics. Recitations, *one hour a week*; laboratory work, *two hours a week.*

13, 14. PHYSICS PROBLEMS.—The solution of problems in General Physics. Open to students in Courses 1 and 2, or 5 and 6. *One hour a week.*

50. OPTICS.—An advanced course in the subject. Lectures; recitations. Mathematics 8 is a prerequisite. Given in 1920-21 and alternate years. *Three hours a week.*

51. OPTICS LABORATORY.—An advanced laboratory course in light. †*Four hours a week.*

52. MECHANICS AND HEAT LABORATORY.—An advanced laboratory course dealing more with the accuracy of results than Courses 3 and 4. †*Four hours a week.*

53. ELECTRICAL MEASUREMENTS.—An advanced laboratory course in the measurement of electrical quantities. Both direct and alternating currents are studied. †*Six hours a week.*

55. ELECTRICITY AND MAGNETISM.—Recitations on the mathematical theory of direct current phenomena. *Two hours a week.*

56. ELECTRICITY AND MAGNETISM.—A continuation of Course 55, dealing with alternating current phenomena. *Two hours a week.*

58. MATHEMATICAL PHYSICS.—The application of mathematical methods to the treatment of problems in physics. Given in 1921-22 and alternate years. *Two hours a week.*

60. SOUND.—Lectures and recitations. Given in 1920-21 and alternate years. *Two hours a week.*

61. HEAT.—An advanced course. Given in 1921-22 and alternate years. *Three hours a week.*

63. THEORY OF MEASUREMENTS.—This course is based upon the theory of least squares, and covers such topics as adjustment of observations, propagation of errors, empirical formulae, and graphic methods. *Two hours a week.*

65. VACUUM TUBES.—Lectures and recitations covering the theory of the vacuum tube as used in amplifiers, detectors, oscillators, etc. Course 2 and Mathematics 8 are prerequisites. *Two hours a week.*

66. VACUUM TUBE LABORATORY.—Laboratory work with vacuum tubes covering the work of Course 65. *Two hours a week.*

6. RADIO-ACTIVITY.—A brief survey of the principal facts connected with radio-activity. Given in 1920-21 and alternate years. Lectures, *one hour a week*; laboratory work, *two hours a week.*

71. THERMODYNAMICS.—An elementary course. *Two hours a week.*

10102. SPECIAL LABORATORY COURSES.—A subject for investigation is assigned or some published research is repeated. Open only to graduate students. *Four or more hours a week.*

## PUBLIC SPEAKING

ASSOCIATE PROFESSOR BAILEY

1, 2. PUBLIC SPEAKING.—This course trains the student to organize his material and to deliver short speeches from the platform. Extemporaneous speaking is especially emphasized on subjects suitable for technical students. *One hour a week.*

1a, 2a. PUBLIC SPEAKING.—Similar to Course 1 with the exception that agricultural subjects are selected. *One hour a week.*

3, 4. DEBATING.—A study of the principles of argumentation and debate. Public questions or technical questions of general interest are debated and discussed. Course 1, 2 is a prerequisite. Technical students who continue Public Speaking are expected to take this course. *One hour a week.*

5. ENGLISH ORATORS.—A study of representative orations; structure of the oration; qualities of a good oration; the preparation and delivery of speeches. Course 1, 2 is a prerequisite. *One hour a week.*

6. AMERICAN ORATORS.—Similar to Course 7 but dealing with American orators. *One hour a week.*

7, 8. ELOCUTION.—This course is especially designed for women. Some public speaking work including speeches is introduced into the course, and the reading and rendering of various selections of merit are an important part of the requirements. *One hour a week.*

9, 10. DRAMATIC READING.—A critical study of two plays,—a tragedy and a comedy; expressional reading of principal scenes. Characters are assigned to members of the class and scenes presented from the platform. Open to sophomores, juniors, and seniors. *Two hours a week.*

11, 12. PLAY PRODUCTION.—The presentation of one or more plays suitable for college production. Special consent of the instructor is required to take this course. It will be offered only if the registration warrants it. *One hour a week.*

## SPANISH AND ITALIAN

PROFESSOR PETERSON; MISS ARNOLD; MR. STRAUSBAUGH

### Spanish

Major students in Spanish are required to complete the courses in Advanced Composition and the History of Spanish Literature. The requirement of thirty semester hours for a master's degree in Spanish may be met in one year by completing a minimum of twelve hours of advanced work in that language, by writing a satisfactory thesis on some topic connected with Spanish for which six hours' credit will be allowed, by completing the remainder of the required work in not more than two minor subjects, and by passing an oral examination covering all the work of the year.

1, 2. ELEMENTARY SPANISH.—In this course stress will be laid upon conversation as well as upon grammar, reading and composition. The instructor will insist upon careful pronunciation and accurate translation. During the spring semester collateral reading may be assigned at the discretion of the instructor. *Five hours a week.*

3, 4. INTERMEDIATE SPANISH.—For second year students. The chief aim of these courses is to acquire sufficient facility in the use of the language so as to be able to read at sight ordinary prose, to gain some acquaintance with present day literature, and to prepare the way for the study of the classics. Collateral reading will be assigned. There will be constant oral practice based on the texts read and much attention will be given to the mastery of idioms. *Three hours a week.*

5, 6. ELEMENTARY COMPOSITION AND CONVERSATION.—This course may be taken by second year students who are pursuing at the same time

Courses 3 and 4. Stress will be laid on review of the grammar, dictation and composition. Students may be required to memorize selections in prose and verse. Attention will be given to the acquisition of a practical vocabulary. *Two hours a week.*

7, 8. COMMERCIAL SPANISH.—For third year students. The object of this course is to acquaint the student with the forms of private and commercial correspondence and the vocabulary used in the business world. Considerable reading of selections dealing with industrial and commercial life will be required. Usually given in alternate years. *Two hours a week.*

9. THE SPANISH AMERICAN COUNTRIES.—The civilization of the Spanish speaking countries of the New World will be considered in its intellectual and moral as well as its material aspects. The customs, social institutions, literature, history, and ideals of Spanish America will be touched upon as well as its geography, commerce, and industries. Lectures, reading, and recitations. No reading in Spanish will be required and students who complete this course may receive credits for the social science group but not for language. Not open to freshmen. To be given in 1922-23 and alternate years. *Two hours a week.*

10. THE SPANISH AMERICAN COUNTRIES.—This course will be devoted to the reading and discussion of selections in Spanish descriptive of the Spanish American countries and the life of their people. Prerequisite, thirteen hours work in the Spanish language and Course 9. *Two hours a week.*

51, 52. SPANISH CLASSICS.—Selections from Cervantes, the dramatists of the "Golden Age," and some of the more difficult works of later authors will form the subject of study. Collateral reading of less difficult material and frequent themes in Spanish will be required. Open to students who have completed twenty hours of Spanish. *Three hours a week.*

53, 54. ADVANCED COMPOSITION AND CONVERSATION.—A continuation of courses 5 and 6 for third or fourth year students. Translation from English to Spanish, original compositions on assigned subjects, and oral work of different kinds to secure facility in expression form the basis of these courses. *Two hours a week.*

56. THE TEACHING OF SPANISH.—The course is devoted to a consideration of problems and methods of teaching Spanish in the secondary school and of the necessary equipment of the teacher for this work. It includes a study of the characteristic Spanish institutions and of the geography of Spain, a systematic presentation of the principles of Spanish phonetics, the examination of text books, and attention to bibliography. Lectures, investigations, and reports. Open to juniors and seniors. Given in the spring semester of 1923 and alternate years. *Three hours a week.*



57, 58. HISTORY OF SPANISH LITERATURE.—The main facts and theories of the subject will be presented by means of lectures in Spanish. Works of representative Spanish authors and modern books of criticism will be assigned for reading. Some attention will be given at the end to Spanish American literature. *Three hours a week.*

101. OLD SPANISH.—The student will study the laws governing the development of Spanish from popular Latin, and its growth from the beginning to the present day. As many selections will be read from early authors as time permits. Some acquaintance with Latin is presupposed. *Three hours a week.*

102. THE SPANISH DRAMA.—The course will consist of a comprehensive study of the development of the drama and the rapid reading of plays of various periods. *Three hours a week.*

### Italian

1, 2. ELEMENTARY ITALIAN.—This is a course in Italian grammar, reading, and composition designed for those who wish to begin as soon as possible the study of the Italian classics. Students will not be permitted to elect Elementary Italian and Elementary Spanish in the same year. Given in 1922-23 and alternate years. *Three hours a week.*

30. MODERN ITALIAN PROSE.—Selections from representative authors will be studied in an endeavor to acquire as much facility in reading as possible. Review of the grammar, composition and collateral reading. Offered in 1921-22 and alternate years. *Three hours a week.*

52. DANTE.—The basis of the reading in this course will be the *Inferno*. The life and times of Dante and his influence in literature will be treated by means of lectures and reports. Open to students who have taken Course 3 or an equivalent. Given in 1921-22 and alternate years. *Three hours a week.*



# College of Technology

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## FACULTY OF INSTRUCTION

- HAROLD SHERBURNE BOARDMAN, C.E., *Dean of the College of Technology and Professor of Civil Engineering*
- CHARLES PARTRIDGE WESTON, C.E., M.A., *Professor of Mechanics*
- WILLIAM EDWARD BARROWS, E.E., *Professor of Electrical Engineering*
- WILLIAM JORDAN SWEETSER, S.B., *Professor of Mechanical Engineering*
- CHARLES ANDREW BRAUTLECHT, Ph.D., *Professor of Chemistry*
- ARCHER LEWIS GROVER, B.M.E., B.S., *Professor of Engineering Drawing*
- EMBERT HIRAM SRPAGUE, B.S., *Professor of Civil Engineering*
- BENJAMIN CALVIN KENT, B.S., *Associate Professor of Mechanical Engineering*
- ARTHUR ST. JOHN HILL, E.E., *Associate Professor of Electrical Engineering*
- ALPHEUS CROSBY LYON, B.S., C.E., *Associate Professor of Civil Engineering*
- BERTRAND FRENCH BRANN, M.S., *Associate Professor of Chemistry*
- JASON LESLIE MERRILL, Ph.B., B.S., *Associate Professor of Chemistry*
- HAROLD WALTER LEAVITT, M.S., *Associate Professor of Civil Engineering*
- WALTER DAVIS EMERSON, B.S., *Assistant Professor of Mechanical Engineering*
- EVERETT WILLARD DAVEE, *Instructor in Wood and Iron Work*
- WALTER JOSEPH CREAMER, E.E., *Instructor in Electrical Engineering*
- PLATT ASHLEY PEARSALL, B.S., *Instructor in Chemistry*
- JAMES STROTHARD BROOKS, *Instructor in Engineering Drawing*
- WESTON SUMNER EVANS, B.S., *Instructor in Civil Engineering*
- EVERETT JOSHUA FELKER, *Instructor in Civil Engineering*
- HARRY ROY PERKINS, *Instructor in Mechanical Engineering*
- HARRY DEXTER WATSON, B.S., *Instructor in Mechanical Engineering*
- HAROLD CHANDLER WHITE, B.S., *Instructor in Chemistry*
- JOHN NEWELL CROMBIE, B.Chem., *Instructor in Chemistry*
- MILTON ROLAND LOURIA, Ch.E., *Instructor in Chemistry*
- WALTER WILLIAM PURDY, B.S., *Instructor in Chemistry*
- EVERETT LOUIS ROBERTS, B.S., *Instructor in Electrical Engineering*
- GEORGE MERVIL SEELEY, A.B., *Instructor in Chemistry*
- PERCIVAL POOLE GOODING, S.B., *Lecturer in Chemistry*
- HERBERT BURR ABBOTT, *Mechanician in Mechanical Engineering*
- LEO DAY, *Assistant in State Highway Laboratory*

## GENERAL INFORMATION

The College of Technology provides technical instruction in chemistry, and in various branches of engineering. The number of hours required for graduation in this college is one hundred and fifty. In such technical curricula it is necessary to prescribe a large proportion of the work; but some elective studies may be chosen in the junior and senior years. Under each of the curricula described below is given a tabulated statement of the subjects pursued and the amount of work required. The college comprises:

Chemical Engineering Curriculum  
Chemistry Curriculum  
Civil Engineering Curriculum  
Electrical Engineering Curriculum  
Mechanical Engineering Curriculum

The following requirements for graduation are common to all curricula in this college:

1. Mathematics, the equivalent of two years, five hours a week, except in Chemistry and Chemical Engineering, where one and two-fifths years are required.

2. Science (chemistry, physics, or biology), the equivalent of one year, five hours a week, of which time an important part must be occupied with laboratory work.

3. Language: English, the equivalent of one year, five hours a week; modern foreign language, the equivalent of one year, five hours a week, but the foreign language may not be the one offered for admission except by permission of the Dean of the College of Technology. By permission of his major instructor, a student may transfer not to exceed three semester hours from English to the foreign language which he is taking.

If a student shall offer for admission in addition to the regular admission requirement in foreign language, at least two units of another modern foreign language, then the above requirement of a five-hour year in one of those languages may be waived by his major instructor.

At graduation in any of these curricula the student receives the degree of Bachelor of Science.

## Maine Technology Experiment Station

By action of the Board of Trustees, June, 1915, the establishment of a Maine Technology Experiment Station was authorized. This station is under the direct control of the President of the University, the Dean of the College of Technology, and the heads of the Departments of

Chemistry and Engineering. The Station carries on practical research in engineering subjects, makes investigations for State Boards and municipal authorities, furnishes scientific information to the industries of the State, and distributes accurate scientific knowledge to the people. Bulletins are issued during the college year.

## Chemical Engineering Curriculum

In view of the rapid development of the application of Chemistry in manufacturing, this curriculum is offered to furnish training in engineering together with specialization in chemistry. The first two years are almost identical with those under the Chemistry Curriculum, but in the junior and senior years the student takes in part fundamental courses in mechanical and electrical engineering, etc. while, in the Chemistry Curriculum, the student takes subjects having a chemical and biological aspect. The training is thus essentially chemical, and the graduates are primarily chemists having a knowledge of mechanical and electrical engineering, etc. Such students will be prepared to enter the profession of chemical engineering and to occupy positions in manufacturing establishments such as metallurgical works, bleacheries, dye houses, chemical plants, gas works, sugar refineries, pulp and paper mills, etc.

### *Option I. Regular Curriculum*

#### FRESHMAN YEAR

##### *Fall Semester*

Subject	Hours
Chemistry 1-5 or 3-7.....	4
Drawing 1, *6.....	2
English 1.....	2
German or French.....	5
Mathematics 1-3.....	5
Military 1, *3.....	1
Physical Training.....	½

##### *Spring Semester*

Subject	Hours
Chemistry 2-6 or 4-8.....	4
Drawing 2, *6.....	2
English 2.....	2
German or French.....	5
Mathematics 6.....	5
Military 2, *3.....	1
Physical Training 2.....	1

#### SOPHOMORE YEAR

Chemistry 11.....	6	Chemistry 40.....	5
Chemistry 17.....	1	German or French.....	
German or French.....		Mathematics 14.....	2
Mathematics 13.....	3	Mechanical Eng. 4.....	1.5
Physics 1-3.....	5	Mechanical Eng. 58.....	2
Public Speaking 1.....	1	Physics 2-4.....	5
Military 3.....	1	Public Speaking 2.....	1
		Military 4.....	1

## JUNIOR YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Chemistry 51.....	5	Chemistry 52.....	5
Chemistry 61.....	5	Chemistry 56.....	2
Chemistry 71.....	3	Chemistry 62.....	5
German 15.....	2	Chemistry 72.....	3
Mechanical Eng. 83.....	3	Chemistry 74, †4.....	2
Physics 53, †6.....	3	Electrical Eng. 30.....	2
Public Speaking 3.....	1	Public Speaking 4.....	
		or	
		English 10.....	

## SENIOR YEAR

Chemistry 77.....	3	Chemistry 78.....	3
Chemistry 79.....	5	Chemistry 80.....	
Chemistry 93.....	1	Chemistry 98.....	2
Chemistry 95.....	3	Chemistry 100.....	
Chemistry 97.....	2	Mechanics 2.....	3
Electrical Eng. 31.....	2	At least four hours from	
Electrical Eng. 33.....	1½	the following:	
English 5.....	2	Chemistry 88.....	2
Mechanical Eng. 75.....	1½	Chemistry 92.....	2
		Chemistry 94.....	2
		Mechanical Eng. 98.....	2

*Option II***Paper and Pulp Curriculum**FRESHMAN YEAR *Same as Option I*

## SOPHOMORE YEAR

Chemistry 11.....	6	Chemistry 40.....	5
Chemistry 17.....	1	Forestry 2.....	2
Biology 17.....	1	German or French.....	
German or French.....		Mathematics 14.....	2
Mathematics 13.....	3	Mechanical Eng. 4.....	1.5
Physics 1-3.....	5	Mechanical Eng. 58.....	2
Public Speaking 1.....	1	Physics 2-4.....	5
Military 3.....	1	Military 4.....	1

## JUNIOR YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Chemistry 51.....	5	Chemistry 52.....	5
Chemistry 61.....	5	Chemistry 62.....	5
Chemistry 65.....	1	Chemistry 66.....	1
Chemistry 67.....	2	Chemistry 68.....	2
Chemistry 71.....	3	Chemistry 72.....	3
Forestry 9.....	1	Chemistry 74.....	2
German 15.....	2	Electrical Engineering 30...	2
Mechanical Eng. 83.....	3	English 10 .....	2

## SENIOR YEAR

Chemistry 75.....	2	Chemistry 78.....	3
Chemistry 77.....	3	Chemistry 80.....	
Chemistry 81.....	1	Chemistry 82.....	2
Chemistry 87.....	2	Chemistry 86.....	2
Chemistry 93.....	1	Chemistry 98.....	2
Chemistry 97.....	2	Chemistry 100.....	
Electrical Eng. 31.....	2	At least four hours from the following:	
Electrical Eng. 33.....	1.5	Chemistry 92.....	2
English 5 .....	2	Chemistry 94.....	2
Mechanical Eng. 75.....	1.5	Mechanical Eng. 98.....	2

At graduation the chemical engineering student receives the degree of Bachelor of Science. Upon the completion of one year's prescribed work in residence, including the presentation of a satisfactory thesis, he receives the degree of Master of Science. Three years after graduation, upon presentation of a satisfactory thesis and proofs of professional work, he may receive the degree of Chemical Engineer.

## Chemistry Curriculum

This curriculum is designed to give the student not only a thoro technical training, but also a breadth of education which will enable him readily to undertake the great variety of problems which naturally present themselves to a chemist. It differs from the Chemical Engineering curriculum in that the student takes some courses having a biological aspect, (bacteriology, biological chemistry, etc.) rather than those of an engineering type. The curriculum is a broad one and, when completed, it prepares the student to teach, or for the profession of chemist in experiment sta-

tions, food laboratories, chemical fertilizer and tanning plants; metallurgical, rubber, and electric machinery manufactories; and the general consulting and analytical work of a professional chemist.

FRESHMAN YEAR *Same as in Chemical Engineering*

SOPHOMORE YEAR

*Fall Semester*

Subject	Hours
Chemistry 11.....	6
Chemistry 17.....	1
German or French.....	
Mathematics 13.....	3
Physics 1-3.....	5
Public Speaking 1.....	1
Military 3.....	1

*Spring Semester*

Subject	Hours
Chemistry 40.....	5
Chemistry 42.....	1
Bacteriology 2, *6.....	3
German or French.....	
Mathematics 14.....	2
Physics 2-4.....	5
Public Speaking 2.....	1
Military 4.....	1

JUNIOR YEAR

Chemistry 51.....	5
Chemistry 61.....	5
Chemistry 71.....	3
Biochemistry 3.....	2
English 9.....	
or	
Public Speaking 3.....	
German 15.....	2
Physics 71.....	2

Chemistry 52.....	5
Chemistry 56.....	2
Chemistry 58.....	2
Chemistry 62.....	5
Chemistry 72.....	3
Chemistry 74.....	2
English 10.....	
or	
Public Speaking 4.....	
Physics 52.....	2

SENIOR YEAR

Chemistry 77.....	3
Chemistry 79.....	5
Chemistry 91.....	3
Chemistry 93.....	1
Chemistry 97.....	2
Biochemistry 51.....	2
English 5.....	2
Option of	
Chemistry 89.....	2
Chemistry 95.....	3

Chemistry 78.....	3
Chemistry 80.....	
Biochemistry 52, †4.....	2
Chemistry 98.....	2
Chemistry 100.....	
At least four hours from the following:	
Chemistry 88.....	2
Chemistry 92.....	2
Chemistry 94.....	2
Biochemistry 60, †8.....	4
Mechanical Eng. 98.....	2



## Civil Engineering Curriculum

The object of the Curriculum in Civil Engineering is to give the student as thoro a knowledge as possible of the principles underlying the profession. The attempt is made to give the student not only a technical education, but to form the basis for a liberal one as well.

The methods of instruction are recitations, lectures, original problems, work in the testing laboratories, field practice, and designing. Effort is made to acquaint the student with the best engineering practice and with the standard engineering literature.

The work of the first year is the same for all engineering students, especial attention being paid to mathematics and English. The technical work begins in the fall semester of the second year with field work and the study of surveying. This technical work is gradually increased, until the last year when it is nearly professional. At the beginning of the fourth year an opportunity is offered to specialize slightly along one of the three lines. The first, called Option 1, consists of work in hydraulic engineering and electrical transmission, the second, Option 2, consists of work in railroad engineering, while Option 3 consists of work in highway engineering.

### REQUIREMENTS FOR GRADUATION

#### FRESHMAN YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Chemistry 1 or 3.....	2	Chemistry 2 or 4.....	2
Chemistry 5, †4.....	2	Chemistry 6, †4.....	2
Drawing 1, *6.....	2	Drawing 2, *6.....	2
English 1.....	2	English 2.....	2
Mathematics 1 and 3.....	5	Mathematics 6.....	5
Military 1, *3.....	1	Military 2, *3.....	1
Modern Language.....	5	Modern Language.....	5
Physical Training, *3.....	½	Physical Training, *2.....	1

#### SOPHOMORE YEAR

Civil Engineering 1 and 7....	3½	Civil Engineering 2, 4.....	2½
Drawing 3, *6.....	2	Drawing 4, *6.....	2
Public Speaking 1.....	1	Public Speaking 2.....	1
Mathematics 7.....	5	Mathematics 8.....	5
Military 3, *3.....	1	Military 4, *3.....	1
Physics 1.....	4	Physics 2.....	4
Physics 3, †2.....	1	Physics 4, †2.....	1
Economics 1b.....	2	Physics 52.....	2
		Economics 2b.....	2

## JUNIOR YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Civil Engineering 9.....	2	Civil Engineering 20.....	2
Civil Engineering 25.....	2	Civil Engineering 22 and 24	2
Civil Engineering 21, 23, *6..	2	Civil Engineering 26.....	3
Civil Engineering 29.....	2	Civil Engineering 28.....	3
Geology 3.....	2	Civil Engineering 30.....	2
Mechanics 51.....	5	Civil Engineering 54, †2....	1
Astronomy 57.....	3	Mechanics 52.....	5
Public Speaking 3.....	1	Mechanical Eng. 74, †2....	1
		Public Speaking 4.....	1

## SENIOR YEAR

Civil Engineering 57.....	3	Civil Engineering 58.....	3
Civil Engineering 59, †9.....	4½	Civil Engineering 60.....	2
Civil Engineering 61.....	1	Civil Engineering 62, †6....	3
Civil Engineering 55 and 51		Civil Engineering 52 and	
(Option 1).....	4	Electrical Engineering 42	
Civil Engineering 63 and 53		(Option 1).....	4
(Option 2).....	4	Civil Engineering 64 and 66	
History 5.....	2	(Option 2).....	4
English 5.....	2	Civil Engineering 68 and 72	
		(Option 3).....	4
		Economics 12.....	3

At graduation the student receives the degree of Bachelor of Science. Upon the completion of one year's prescribed work in residence, including the presentation of a satisfactory thesis, he receives the degree of Master of Science. Three years after graduation, upon the presentation of a satisfactory thesis and proofs of professional work, he may receive the degree of Civil Engineer.

### Electrical Engineering Curriculum

This curriculum is intended to provide the student with a thorough understanding of the underlying principles of electrical engineering and to develop an ability to solve problems of an engineering nature from commercial as well as technical premises. To accomplish this, the student first studies the various electrical laws and methods of electrical measurements and correlates them with various laws previously assimilated in the study of physics and mathematics. These studies are followed by

more advanced courses involving the fundamental electrical laws and theories and showing their application to the design, operation, and performance of electrical apparatus such as is used in the generation of electrical energy or in transforming electrical energy into mechanical energy for the various commercial requirements.

Courses in Telephony and Radio Practice are offered to those wishing to continue work in communication engineering after graduation.

It is the endeavor of the curriculum to acquaint the student with contemporary engineering practice, and, by persistent association of abstract analysis with practical problems, to equip him with the fundamentals of a successful career. Stress is laid upon the systematic reading of technical periodicals and the acquirement of a reference library. Effort is made to have lectures by active engineers and alumni following their profession, thus bringing the student into more intimate contact with the engineering world.

In addition to the purely electrical subjects, the student takes the customary work in mathematics, physics, mechanics, shop, drawing, and allied engineering courses, together with the cultural subjects enumerated below.

## FRESHMAN YEAR

*Fall Semester*

Subject	Hours
Chemistry 1 or 3.....	2
Chemistry 5, †4.....	2
Drawing 1, *6.....	2
English 1.....	2
Mathematics 1 and 3.....	5
Military 1, *3.....	1
Modern Language.....	5
Physical Training 1, *2.....	½

*Spring Semester*

Subject	Hours
Chemistry 2 or 4.....	2
Chemistry 6, †4.....	2
Drawing 2, *6.....	2
English 2.....	2
Mathematics 6.....	5
Military 2, *3.....	1
Modern Language.....	5
Physical Training 2, *2.....	1

## SOPHOMORE YEAR

Electrical Eng. 1.....	2
Drawing 3, *6.....	2
Economics 1b.....	2
Mathematics 7.....	5
Military 3, *3.....	1
Physics 1.....	4
Physics 3, †2.....	1
Public Speaking 1.....	1
Civil Eng. 3.....	1
Civil Eng. 5, *3.....	½

Electrical Eng. 2.....	3
Drawing 4, *6.....	2
Economics 2b.....	2
Mathematics 8.....	5
Military 4, *3.....	1
Physics 2.....	4
Physics 4, †2.....	1
Public Speaking 2.....	1

## JUNIOR YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Electrical Eng. 5.....	3	Electrical Eng. 6.....	4
Electrical Eng. 7.....	1	Electrical Eng. 8.....	1
Electrical Eng. 7, †3.....	1½	Electrical Eng. 8, †3.....	1½
Mechanics 51.....	5	Electrical Eng. 20 or 22....	2
Mechanical Eng. 9, *4.....	1½	Mechanics 52.....	5
Mechanical Eng. 27.....	3	Mechanical Eng. 10, *4.....	1½
Physics 53, †6.....	3	Mechanical Eng. 84.....	3
Public Speaking 3.....	1	Public Speaking 4.....	1

## SENIOR YEAR

Electrical Eng. 51.....	4	Electrical Eng. 52.....	4
Electrical Eng. 61 or 65.....	3	Electrical Eng. 54, †2.....	1
Electrical Eng. 75.....	1	Electrical Eng. 56 or 66....	3
Electrical Eng. 75, †3.....	1½	Electrical Eng. 64 or 70....	2
Electrical Eng. 77.....	1	Electrical Eng. 76.....	1
Civil Eng. 33.....	1	Electrical Eng. 76, †3.....	1½
Civil Eng. 35.....	2	Economics 12.....	3
English 5.....	2	or	
Mechanical Eng. 77, †3.....	1½	Mechanical Eng. 98.....	2
Mechanical Eng. 85.....	3	Inspection Trip 78.....	
Thesis 80.....		Thesis 80.....	

**Mechanical Engineering Curriculum**

The field of the mechanical engineer embraces all work involving the design, construction, or installation of machinery, either for manufacturing, transportation, or power generation; the design, manufacture, and installation of heating and ventilating or refrigerating equipment; the superintendence or management of factories, power plants, and motive power; the equipment of railways, and similar work.

The Mechanical Engineering Curriculum is arranged to equip men as well as possible in four years' time to enter any of these lines of work.

It is not possible to develop the student into an expert engineer in any branch of the profession. It is also not possible, in general, to foresee what will be his ultimate occupation. Accordingly, those subjects which are fundamental to all engineering work and which may best be learned in college are most emphasized in the required courses while those subjects which are best acquired in practical work are left for the engineer graduate to obtain in actual practice. An endeavor is made,

however, to give the more advanced technical courses such a trend as to make the period of adjustment of the graduate to practical engineering conditions short and his acquirement of the knowledge necessary for advancement rapid.

The theoretical work is taught by lectures and recitations. The texts are carefully chosen and are supplemented, where necessary to illustrate more recent practice, by explanation and examples given by the instructor. Numerous problems are assigned for work outside the classroom to make sure the student can apply the principles learned.

Courses in the shops and laboratories illustrate the application of matter learned in the recitation work, and also teach methods of construction, operation, and testing of apparatus by direct contact with it. In the drawing rooms, application of theories to work in design are taught, together with methods and requirements for the production of neat and accurate engineering drawings.

Thoro instruction is given in the theory and operation of both direct and alternating current electrical machinery, with ample practice in the electrical laboratory. Sufficient time is devoted to recitation and field work in surveying to give familiarity with instruments and methods. Lectures by practical engineers and trips of inspection to engineering works help to bring before the student the conditions existing in practice.

### REQUIREMENTS FOR GRADUATION

#### FRESHMAN YEAR

##### *Fall Semester*

Subject	Hours
Chemistry 1 or 3.....	2
Chemistry 5, †4.....	2
Drawing 1, *6.....	2
English 1.....	2
Mathematics 1-3.....	5
Military 1, *3.....	1
Modern Language.....	5
Physical Training *2.....	½

##### *Spring Semester*

Subject	Hours
Chemistry 2 or 4.....	2
Chemistry 6, †4.....	2
Drawing 2, *6.....	2
English 2.....	2
Mathematics 6.....	5
Military 2, *3.....	1
Modern Language.....	5
Physical Training *2.....	1

## SOPHOMORE YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Economics 1b .....	2	Economics 2b .....	2
Drawing 3, *6.....	2	Drawing 4, *6.....	2
Mathematics 7.....	5	Mathematics 8 .....	5
Mechanical Eng. 1, *3.....	1	Mechanical Eng. 2, *6.....	2
Mechanical Eng. 3, *3.....	1	Military 4, *3.....	1
Mechanical Eng. 23.....	1	Physics 2 .....	4
Military 3, *3.....	1	Physics 4, †2.....	1
Civil Eng. 3.....	1	Physics 52, †4.....	2
Physics 1 .....	4	Public Speaking 2.....	1
Physics 3, †2.....	1		
Public Speaking 1.....	1		

## JUNIOR YEAR

Mechanical Eng. 7, *6.....	2	Mechanical Eng. 8, *6.....	2
Mechanical Eng. 25, *3, 3....	4	Mechanical Eng. 66.....	3
Mechanical Eng. 31.....	2	Mechanical Eng. 68.....	3
Mechanical Eng. 69, †2.....	1	Mechanical Eng. 70, †3....1½	
Mechanical Eng. 79.....	3	Mechanical Eng. 80.....	3
Mechanics 51 .....	5	Mechanics 52 .....	5
Public Speaking 3.....	1	Public Speaking 4.....	1

## SENIOR YEAR

Mechanical Eng. 81.....	3	Mechanical Eng. 72, †3....1½	
Mechanical Eng. 71, †3....1½		Mechanical Eng. 82.....	2
Mechanical Eng. 67, *6.....	2	Mechanical Eng. 88, *6.....	2
Civil Engineering 33.....	1	Mechanical Eng. 92.....1½	
Civil Engineering 35.....	2	*Mechanical Eng. 94.....1½	
Civil Engineering 67.....	2	*Economics 2b .....	2
Electrical Engineering 35....	2	Electrical Eng. 36.....	2
English 5.....	2	Electrical Eng. 38, †3....1½	
*Philosophy 61.....	3	Mechanical Eng. 96.....	1
		Mechanical Eng. 98.....	2
		Inspection Trip.....	
		Thesis .....	

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\*Substitution may be offered for this course if approved by the major instructor.



## Departments of Instruction

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NOTE. A star (\*) before the time designated for a course indicates that three hours of actual work are required to obtain credit for one hour; a dagger (†) indicates that two hours are required.

*Courses designated by an odd number are given in the fall semester; those designated by an even number, in the spring semester.*

*Courses numbered 1-50 are for undergraduates only; courses numbered 50-100 are for graduates and undergraduates; courses numbered 100 and above are for graduates.*

### CHEMISTRY

PROFESSOR BRAUTLECHT; ASSOCIATE PROFESSOR BRANN; ASSOCIATE PROFESSOR MERRILL; MR. PEARSALL; MR. WHITE; MR. CROMBIE;  
MR. PURDY; MR. GOODING; MR. SEELEY; MR. LOURIA

1-5, 2-6. GENERAL CHEMISTRY.—This course deals with the general principles of the science. *Two hours a week* of lectures and recitations; laboratory, †*four hours a week*. Courses 1-5 and 2-6 or 3-7 and 4-8 constitute the first year's work in chemistry.

3-7, 4-8. ADVANCED GENERAL CHEMISTRY.—A course similar to Course 1-5, 2-6 but for students who have had a thorough course in elementary chemistry. *Two hours a week* of lectures and recitations; laboratory, †*four hours a week* in inorganic preparations.

(Students to enroll in Courses 3-7 and 4-8, must, at time of registration, present their original laboratory note book in elementary chemistry, approved by, and having the signature of, their previous instructor.)

11. QUALITATIVE ANALYSIS.—This course includes the general reactions of the metals and acids with their qualitative separation and identification. Lectures, recitations, and laboratory work. *Twelve hours a week*.

11a. PRE-MEDICAL QUALITATIVE ANALYSIS.—A somewhat shorter course than Ch. 11 for pre-medical students. *Ten hours a week*.

16. PRE-MEDICAL ORGANIC CHEMISTRY.—An elementary course giving in one semester the fundamentals of the subject. Students who have the time available are advised to take Courses 51, 52. Prerequisite, General Chemistry and qualitative analysis. *Three hours* recitation and lecture and †*four hours* laboratory work a week

17. HISTORY OF CHEMISTRY.—*One hour a week.*

40. ELEMENTARY QUANTITATIVE ANALYSIS.—An introductory course illustrating the fundamental principles of gravimetric methods. Prerequisite, Course 11. *One hour class work; †eight hours laboratory.*

42. GENERAL APPLICATIONS OF CHEMISTRY.—Lecture course. *One hour a week.*

51, 52. ORGANIC CHEMISTRY.—Lectures, recitations, and laboratory work. Course 11 prerequisite. For juniors. *Three hours of class room; †four hours of laboratory work a week.*

56. METALLURGY.—An introductory study dealing with iron, steel, and common metals. *Two hours a week.*

58. MINERALOGY AND CRYSTALLOGRAPHY.—Prerequisite, Ch 11. *†Four hours a week.*

59. FUEL AND GAS ANALYSIS.—Course 40 is a prerequisite. *†Four hours a week.* (May be given in abbreviated form in Ch 79.)

61. ADVANCED QUANTITATIVE ANALYSIS.—A continuation of Course 40, including a study of calibration methods, volumetric analysis, and the application of gravimetric and volumetric methods. Course 40 is a prerequisite. *One hour class; †eight hours laboratory.*

62. ELEMENTARY TECHNICAL ANALYSIS.—Application of gravimetric and volumetric methods of analysis to some of the more difficult problems of separation and determination. Course 61 is a prerequisite. *One hour class; †eight hours laboratory.*

65. PULP.—A lecture course on the manufacture of pulp and the chemical engineering involved in present day pulp making and uses. Courses 40, 51, prerequisite. *One hour a week.*

66. PAPER TECHNOLOGY.—A lecture course on the processes of manufacturing paper. Course 65 is a prerequisite. *One hour a week.*

67. PULP PREPARATION AND ANALYSIS.—Laboratory work. Semi-commercial scale production of pulps, analysis of pulp makers supplies, by-products, etc. Course 65 must be taken in conjunction. *†Four hours a week.*

68. PAPER MANUFACTURE.—A laboratory course in which paper of various kinds is made. This must be preceded by Course 65 and accompanied by Course 66. *†Four hours a week.*

71, 72. PHYSICAL CHEMISTRY.—This course is devoted to the study of some of the more important principles and methods of physical chemistry in its several branches. Lectures and recitations. Open to students who have completed Chemistry 40, Mathematics 13, and Physics 1-3 and 2-4. *Three hours a week.*

74. PHYSICO-CHEMICAL METHODS.—The purpose of this course is to illustrate the topics considered in Course 71 and 72, as well as to fur-

nish training in physico-chemical laboratory procedure. Determination of molecular weights; the study of solutions thru conductivity and other methods; rate of reaction and chemical equilibrium; potential and electromotive force; calorimetry; and the use of the more important instruments, such as the refractometer, polariscope, and spectroscope. †*Four hours a week.*

75. CELLULOSE.—A course in which cellulose is studied, including laboratory work dealing with the characteristics and derivatives of cellulose. †*Four hours a week.*

77, 78. INDUSTRIAL CHEMISTRY.—General processes of technical chemistry and selected topics, including the principal manufactured products. Lectures and recitations. Courses 51, 52, and 62 are prerequisites. *Three hours a week.*

79. ADVANCED TECHNICAL ANALYSIS.—This course includes the analysis of water from both the technical and sanitary viewpoint; iron and steel, and other industrial products of general importance. Prerequisite, Course 62. *One hour class and †eight hours laboratory a week.*

80. INSPECTION TRIP.—Local trips to manufacturing plants of a chemical nature are taken; also about a week's trip in New England during the spring, when about twenty industrial and chemical plants are visited. A report of the trip is required. The expenses of these trips for the past year were from \$35 to \$45.

81. ELECTROLYTIC BLEACH.—A lecture course on electrolytic bleach. *One hour a week.*

82. PAPER COLORING.—Course 75 is a prerequisite. †*Four hours a week.*

86. BLEACHING OF PULP.—A laboratory course dealing with the methods of bleaching various kinds of pulp. Course 65 is a prerequisite. †*Four hours a week.*

87. PAPER TESTING AND ANALYSIS.—A laboratory course involving physical, microscopical, and chemical work. The work taken up is that ordinarily assigned to the chemist in a paper mill. It includes the testing of papers for bursting strength, tensile strength, stretch, folding strength, etc. Methods for estimating the quality and quantity of different fibres are also studied in the laboratory. Course 62 is prerequisite. †*Four hours a week.*

88. PAPER TESTING AND ANALYSIS.—Duplicate of Ch 87.

89. ORGANIC ANALYSIS.—Qualitative and quantitative determination in organic compounds of carbon, hydrogen, oxygen, nitrogen, sulphur, phosphorus, the halogens, etc. Courses 51, 52, and 61 are prerequisites. †*Four hours a week.*

91. **ADVANCED ORGANIC CHEMISTRY.**—A course involving the general and also special topics of organic chemistry. Prerequisite, Courses 51, 52. *Three hours a week.*

92. **DYEING.**—The practical application of dyes, with and without mordants, to the important textile fibres and filaments. Course 75 is a prerequisite. †*Four hours a week.*

93. **CHEMICAL LITERATURE.**—Reviews and discussions of leading articles appearing in current American, English, French, and German chemical literature. For senior chemical engineering and chemistry students. *One hour a week.*

94. **ORGANIC PREPARATIONS.**—The preparation of a large number of typical organic compounds. Courses 51, 52, and 91 are prerequisites. †*Four hours a week.*

95. **ELECTROCHEMISTRY.**—A lecture and textbook course on the general principles of the subject and its application in industrial work. Courses 71 and 72 are prerequisites. *Three hours a week.*

96. **ASSAYING.**—The fire assay of important typical ores, especially ores containing gold and silver. †*Four hours a week.* (Given only if there is sufficient demand).

97, 98. **THESIS SEMINAR.**—Chemical or Chemical Engineering problems. \**Six hours a week.*

100. **THESIS.**—The thesis will embody the result of the study of a special problem in the laboratory. It will partake of the nature of original investigation, and will ordinarily require not less than †six hours a week. This requirement as thruout the College of Technology is in addition to the 150 hours required for graduation.

101. **SYNTHETIC ORGANIC CHEMISTRY.**—*Time and credit hours arranged.*

111. **METHODS OF TEACHING CHEMISTRY.**—*One hour a week.*

Equipment obtained and receipted for by a student and not returned at the end of a course in good condition, as well as a few non-returnable supplies and a few special chemicals, will be charged to the student at cost. The supply room will be open during all laboratory periods for the obtaining of special equipment on temporary charge slips and for replacing broken articles or obtaining permanent equipment and special chemicals and supplies on permanent charge slips or breakage cards. Breakage cards may be obtained only at the Treasurer's office. All students are required to have one and the unused balance is redeemable at the Treasurer's office.

For courses in Biological and Agricultural Chemistry, see the description of courses given by the Department of Biological and Agricultural Chemistry.

For chemistry courses in the summer term, see the Summer Term Bulletin.

## CIVIL ENGINEERING

PROFESSOR BOARDMAN; PROFESSOR SPRAGUE; ASSOCIATE PROFESSOR LYON;  
ASSOCIATE PROFESSOR LEAVITT; MR. EVANS; MR. FELKER

1. PLANE SURVEYING. FIELD WORK.—This course consists of practice in the use of the chain, tape, compass, transit, level, and other surveying equipment. Required of all students in the Departments of Civil Engineering and Forestry. \**Twelve hours a week.* First nine weeks.

2. PLOTTING.—This course consists chiefly of map drawing from field notes, by the different methods in common use. Courses 1 and 7 are prerequisite. \**Twelve hours a week.* First twelve weeks.

3. PLANE SURVEYING.—A course similar to Course 7. Given to students in the Departments of Mechanical and Electrical Engineering. \**Two hours a week.*

4. FIELD WORK IN SURVEYING.—A continuation of Course 1. This course consists of original surveys, problem work, note keeping, etc. Course 1 is prerequisite. \**Twelve hours a week.* Last six weeks.

5. FIELD WORK IN SURVEYING.—The use of the chain, compass, transit, and level. Required of all students in the Departments of Mechanical Engineering and Electrical Engineering. Given in connection with Course 3 but not with Course 7. \**Six hours a week.* First six weeks.

7. PLANE SURVEYING.—Recitations and lectures covering the general theory of plane surveying, and other surveying operations; description of surveying equipment, and adjustment of instruments; use of chain, tape, compass, transit, and level. Required of all students in the Departments of Civil Engineering and Forestry. \**Three hours a week.*

9. RAILROAD CURVES.—A course of recitations and lectures investigating the geometry of railroad curves, switches, and turnouts. Course 7 or 3 is prerequisite. \**Two hours a week.*

20. MASONRY CONSTRUCTION.—A course including the discussion of stone and brick masonry; cement and cement testing; mortar; plain and reinforced concrete; foundations; pneumatic caissons; culverts, bridge piers, and abutments. \**Two hours a week.*

21. RAILROAD FIELD WORK.—The survey for a railroad about two miles in length. The preliminary and location surveys are made, including running in the curves, obtaining the topography, establishing the grade, and setting the slope stakes. Courses 4, 6, or Courses 4, 27 are prerequisites. \**Six hours a week.* First nine weeks.



22. **ADVANCED SURVEYING.**—This course consists of lectures, readings, and recitations on the theory and practice of base line measurement, triangulation, precise leveling, topographical surveying, the use of the plane table, and the theory and application of least squares. It is a preparation for Course 24. Course 21 is prerequisite. *One hour a week.*

23. **RAILROAD OFFICE WORK.**—The office work of mapping the notes taken in Course 21, including the calculation of the earth work. Courses 2, 21 are prerequisites. *\*Six hours a week.* Last nine weeks.

24. **JUNIOR FIELD WORK.**—This course consists of the practical application in the field and in the office of the principles given in Course 22. Course 22 is prerequisite. Time arranged. Credit, *one hour.*

25. **RAILROAD CONSTRUCTION.**—Recitations and lectures on the field and office practice of staking out and computing amount of excavation and fill; borrow-pits; haul; methods and materials of railroad construction; subgrade; roadbed; track and track work. Course 6 or 27 is prerequisite. *Two hours a week.*

26. **HYDRAULICS.**—Fundamental data; hydrostatics; theoretical hydraulics; instruments and observations; theoretical and actual flow thru orifices, weirs, tubes, pipes, and conduits; dynamic pressure of water. *Three hours a week.*

27. **SIMPLE CURVES AND EARTHWORK.**—A lecture course on the theory and practice of simple railroad curves, and on the field and office practice of staking out and computing earthwork. Given to students outside of the Department of Civil Engineering who desire to take Courses 21 and 23. Courses 1, 4, or Courses 3, 5 are prerequisites. *One hour a week.*

28. **STRUCTURES.**—The theory of the simple beam; loads and reactions; vertical shear; bending moment; influence lines. The object of this course is to give the student a drill in finding vertical shear and bending moment under different systems of loadings, and to apply the same to the design of simple beams, also to familiarize him with the use of steel hand books, various tables, and the slide rule. Class room, *two hours a week.* Drawing room, *†two hours a week.*

29. **SANITARY ENGINEERING.**—The general principles of sewer design and construction, and sewage disposal; a study of city sanitation. Course 1 or 3 is prerequisite. *Two hours a week.*

30. **HIGHWAY CONSTRUCTION.**—The construction and maintenance of city pavements and country roads under various conditions of traffic, climate, soil, etc. Course 1 or 3 is prerequisite. *Two hours a week.*

33. **FOUNDATIONS.**—A short course in the fundamentals of design for different classes of foundations; bearing power of soils, manufacture of cement, mixing and testing of cement and concrete, cofferdams, pneu-



matic caissons. Required of students in Mechanical and Electrical Engineering. *One hour a week.*

35. **HYDRAULICS.**—A short course which includes the main principles given in Course 26. Given to students in the Departments of Mechanical and Electrical Engineering. *Two hours a week.*

51. **HYDRAULIC FIELD WORK.**—The measurement of the flow of rivers are illustrated by the use of the current meter. The data thus obtained is used to plot the rating curves, etc. The measurements taken are reported to the U. S. G. Survey. The expenses of this course are paid by the students. Required of students taking Option 1. Course 26 is prerequisite. †*Four hours a week.*

52. **HYDRAULIC ENGINEERING.**—A continuation of Course 55. The development and utilization of water power; the modern turbine; inspection of hydro-electric plants. *Two hours a week.*

53. **HYDRAULIC FIELD WORK.**—A short course similar to Course 51. Required for students taking Options 2 and 3. Course 26 is prerequisite. †*Two hours a week.*

54. **CEMENT LABORATORY.**—This course consists of making the regulation commercial tests upon different samples of cement. Required of students in Civil Engineering. Course 20 is prerequisite. *The time varies.*

55. **HYDROLOGY.**—A study of stream-flow as applied to water power development; rainfall; evaporation; run-off; methods of obtaining data with a study of their use. Required of students electing Option 1. Course 26 is prerequisite. *Two hours a week.*

57. **STRUCTURES.**—A continuation of Course 28. The theory of stresses in framed structures, including the plate girder, bridge trusses, and roof trusses; reinforced concrete; the principles of designing. The object of this course is to train the student in the application of the principles of mechanics to the design of structures. *Three hours a week.*

58. **STRUCTURES.**—A continuation of Course 57. This course includes a study of the higher types of structures. *Three hours a week.*

59. **DESIGNING.**—This course takes up the design for some of the common types of steel structures, and the preparation of the shop drawings. Course 28 is prerequisite. †*Nine hours a week.*

60. **GRAPHIC STATICS.**—Class and drawing room work in the graphical determination of shear and bending moment, and the analysis of bridge and roof trusses by graphical methods. Course 57 is prerequisite. *Two hours a week.*

61. **ROAD MATERIALS LABORATORY.**—Physical and chemical tests of sand, gravel, stone, brick, wood block, bituminous compounds, and other road materials. Course 30 and Chemistry 1 or 3, 2 or 4, 5, 6 are prerequisites. †*Two hours a week.*

62. **DESIGNING.**—A continuation of Course 59. Course 57 is prerequisite. †*Six hours a week.*

63. **HIGHWAY AND RAILROAD ENGINEERING.**—One half of the semester is devoted to the economics of railroad location and operation; the railroad corporation, its rights and limitations; traffic; operating expenses; the locomotive and its work; distance; curves; grades; etc. The other half semester is devoted to highway management and economics; state highway commissions, their functions and divisions; highway organization, management, and legislation; economic factors of highway location and design. Required of students electing Option 2 and 3. Courses 25 and 30 are prerequisite. *Three hours a week.*

64. **RAILROAD ENGINEERING.**—A course in railroad design. A map reconnaissance for a railroad about twelve to fifteen miles in length is made, applying the theories of Course 63. The final line is located, profile made, grades established, and drainage areas and culverts calculated. The rails, switch points, frogs, and ties for a turnout are designed. Required of students electing Option 2. Courses 23, 63 are prerequisites. †*Four hours a week.*

66. **RAILROAD ENGINEERING.**—A course of lectures and recitations studying various railroad problems; structures; grade crossings and elimination; yards and terminals; signals and interlocking; maintenance and betterment work as discussed in engineering periodicals. Required of students electing Option 2. Course 63 is prerequisite. *Two hours a week.*

67. **GRAPHIC STATICS.**—Class and drawing-room work in the graphical determination of shear and bending moment, and the analysis of roof trusses by graphical methods. Required of students in Mechanical Engineering. *Two hours a week.*

68. **HIGHWAY DESIGN.**—Drawing room study of highway location and relocation including plans of proposed improvement and construction of about five miles of highway with detailed estimates and specifications for the same. Required of students electing Option 3. Course 63 is prerequisite.

72. **HIGHWAY ENGINEERING.**—An advanced course of lectures and recitations on various highway problems; general survey of higher types of pavements; city planning; specifications; cost keeping; maintenance and repair work as discussed in Engineering periodicals. Required of students electing Option 3. Course 63 is prerequisite. *Two hours a week.*

97 and 98. **THESIS WORK.**—The study of and report upon some original investigation, or design. *Time to be arranged.* See regulations regarding degrees.

## ELECTRICAL ENGINEERING

PROFESSOR BARROWS; ASSOCIATE PROFESSOR HILL; MR. CREAMER;  
MR. ROBERTS

1, 2. ELEMENTS OF ELECTRICAL ENGINEERING.—Fundamental laws and principles of electricity, series and parallel circuits, magnetic circuits, electrical instruments, electrical measurements. Recitations and problems. *Two hours a week* first semester; *three hours a week* second semester.

5, 6. FUNDAMENTALS OF ELECTRICAL MACHINERY.—Application of the laws studied in Courses 1 and 2 to fundamental problems common to all types of electrical machinery. General methods of procedure in electrical machine design. Theory, construction, and application of direct-current generators and motors, and a brief introduction to alternating-current circuits and machines. Lectures, recitations, and problems. *Three hours a week* first semester; *four hours a week* second semester.

7, 8. LABORATORY WORK.—Electrical measurements, operation, and testing of direct current generators and motors. Application of the work of Courses 1, 2, 5, 6. *One hour a week* class room; *three hours a week* laboratory.

20. IGNITION AND STARTING SYSTEMS.—The principles of ignition and starting systems as used in the late types of automobiles. Lectures and recitations. *Two hours a week*.

22. ELEMENTARY TELEPHONY.—Principles of telephone apparatus and circuits and telephone lines. The work is descriptive and non-mathematical. Lectures and recitations. *Two hours a week*.

30, 35. DIRECT CURRENT MACHINERY.—Electrical principles and applications; the production, distribution, and utilization of power from the standpoint of the mechanical and chemical engineer. Recitations and problems. *Two hours a week*.

31, 36. ALTERNATING CURRENTS.—Alternating current measurements and calculations; operation of generators and motors. Lectures, recitations, and problems. *Two hours a week*.

33, 38. ELECTRICAL LABORATORY.—These courses are based on Courses 30, 31, 35, and 36. Operation of direct current and alternating current generators and motors; electrical power measurements. *Three hours a week*.

42. ELECTRICAL POWER.—Electrical measurements; the generation transmission, and utilization of electrical power. Lectures, recitations, and problems. *Two hours a week*.

51. ALTERNATING CURRENTS.—Effect of alternating currents in various electric circuits; voltage; current and voltage relations in inductive

and capacity circuits; the theory, construction, and operation of apparatus and machinery. Lectures, recitations, and problems. *Four hours a week.*

52. ADVANCED ALTERNATING CURRENTS.—A continuation of Course 51. Polyphase apparatus; generation, transmission, distribution and utilization of polyphase power; problems involving previous courses. High voltage long distance transmission; transmission line phenomena; methods and practice of securing most reliable service. Lectures, recitations, and problems. *Three hours a week.*

54. TECHNICAL REVIEWS.—A study of some special phase of electrical engineering and the presentation of it to the class. *Two hours a week.*

56. ELECTRICAL POWER PLANTS.—Electrical equipment of power plants, methods of control, switching, protection, lighting arresters; arrangement of station and substation machinery, apparatus, and switchboards. Lectures and recitations. *Three hours a week.*

61. ILLUMINATING ENGINEERING.—Different types of lamps; light, photometry, illumination calculations, and problems of interior and exterior illumination. Lectures, recitations, and problems. *Two hours a week.*

64. ELECTRIC RAILWAY ENGINEERING.—Preliminary considerations in electric railway engineering; principles governing selection of equipment and design of systems for urban, interurban, and trunk-line roads; engineering and economic problems involved in steam railway electrification. Lectures, recitations, and problems. *Two hours a week.*

65. ADVANCED TELEPHONY.—Theory of apparatus; modern laboratory tests; recent developments. Lectures, laboratory, and recitations. *Three hours a week. Laboratory, three hours a week.*

66. TELEPHONIC TRANSMISSION.—Transmission of speech over cable and open wire circuits; electric wave filters and artificial lines; vacuum tube repeaters; multiplex telephony. Lectures and recitations. *One hour a week.*

70. RADIO ENGINEERING.—Fundamentals of wireless telegraphy and telephony. Detectors; sending; receiving; tuning. Lectures and recitations. *Two hours a week.*

75, 76. LABORATORY.—Alternating current measurements; operating, testing, and experimental work on power and lighting apparatus; alternating current instruments; generators, motors, transformers, synchronous converters, polyphase power measurements. *One hour a week classroom; four hours a week laboratory.*

77. ENGINEERING ECONOMICS.—A study of the economic features of engineering projects including first cost, salvage values, operating cost, estimating and economic selection. *One hour a week.*

78. INSPECTION TRIP.—About a week's trip visiting some of the electrical and industrial plants of New England.

80. THESIS WORK.—The study of and report upon some original report or design. Time to be arranged. See regulations regarding degrees.

## ENGINEERING DRAWING

PROFESSOR GROVER; MR. BROOKS

1. DRAWING.—Instruction and practice in technical freehand drawing and lettering, in the care of drawing instruments and their use in elementary problems involving right lines, circles, irregular curves, and orthographic projections. *\*Six hours a week.*

2. DRAWING.—A continued study of the methods of orthographic projection, isometric projection, and oblique projection, accompanied by instruction and practice in the making of working drawings and tracings. *\*Six hours a week.*

3. DRAWING.—The elementary principles and problems of descriptive geometry, including intersections and developments. *\*Six hours a week.*

4. DRAWING.—A continued study of the making of working drawings of simple machines, together with instruction and practice in making titles for the same. *\*Six hours a week.*

9, 10. DRAWING.—A course designed especially for students in Agriculture and for non-engineers. It combines the fundamental principles of Course 1 and Course 2. *\*Three hours a week.*

## MECHANICAL ENGINEERING

PROFESSOR SWEETSER; ASSOCIATE PROFESSOR KENT; ASSISTANT PROFESSOR EMERSON; MR. DAVEE; MR. WATSON; MR. PERKINS; MR. ABBOTT

1. FOUNDRY WORK.—Foundry instruction is given in bench and floor molding, mixing of materials, core making, operation of cupolas, etc. *\*Three hours a week.*

2. WOODWORKING.—Graded exercises in woodworking designed to make the student familiar with tools used in modern woodworking practice, and to give him experience in working from dimensioned drawings. Pattern work, consisting of the making of complete patterns and core boxes from drawing. *\*Six hours a week.*

3. FORGE WORK.—Forging; welding; tool dressing. A set of lathe tools for use in machine shop is made by each student. *\*Three hours a week.*



4. WOODWORKING.—A shorter course than Course 1, arranged for students in Chemical Engineering. *\*Four hours a week.*

5, 6. SHOP WORK.—A special course for Agricultural students, covering metal and woodworking with hand tools mostly, harness repairing, rope splicing, belt lacing, and tool sharpening.

7, 8. MACHINE WORK.—Lathe work; exercises on planer, shaper, and milling machines; making cut gears, machinists' taps, etc. Course 3 is a prerequisite. *\*Six hours a week.*

9, 10. MACHINE WORK.—A shorter course than 7, 8, for electrical engineers. *\*Four hours a week.*

23. ELEMENTS OF MECHANICAL ENGINEERING.—A course of lectures, supplemented by recitations, designed to familiarize the student with the mechanical apparatus of manufacturing and power plants, and with the elementary formulae and constants used in simple engineering calculations. *One hour a week.*

25. KINEMATICS.—A study of motion, velocity, and acceleration of machine parts, supplemented by drawings of cams, gear teeth, and graphical studies of kinematical problems. Class room, *three hours a week*; drawing room, *\*three hours a week.*

27. KINEMATICS.—A shorter course than 25, arranged for Electrical Engineers. *Three hours a week.*

28. KINEMATICS.—A shorter course than 27 given to Chemical Engineers. *Two hours a week.*

31. MATERIALS OF ENGINEERING.—Properties of the metals; timber, rope; protective coatings and preservatives. *Two hours a week.*

66. MACHINE DESIGN.—A study of the designing of machines; proportioning of parts for strength, rigidity, etc. Mechanics 51, is prerequisite. *Three hours a week.*

67. MACHINE DESIGN.—A continuation of Course 66, including the execution of the design of some typical machines. Courses 25 and 66 are prerequisites. *\*Six hours a week.*

68. VALVE GEARS.—A study of the principal steam engine valve motions; construction and use of valve diagrams; solution of practical problems in the drawing room. Class work, *two hours a week.* Drawing room, *\*three hours a week.*

69. MECHANICAL LABORATORY.—Elementary experimental work such as calibration of instruments, use of steam and gas engine indicators, mechanical efficiency tests, etc. *†Two hours a week.*

70. MECHANICAL LABORATORY.—Thermal efficiency and economy tests of steam engines, steam turbines and gasoline engines; valve setting, steam calorimetry, etc. *†Three hours a week.*

71. MECHANICAL LABORATORY.—Tests of materials, heating value of liquid fuels, heat balance tests of steam and gasoline engines. †*Three hours a week.*

72. MECHANICAL LABORATORY.—Tests of condensers, boilers, air compressors, fans, hydraulic testing. †*Three hours a week.*

74. MECHANICAL LABORATORY.—A course arranged for students in Civil Engineering. Testing of strength of materials; measurement of flow of water over weirs, thru orifices and nozzles; calibration of venturi meters. †*Two hours a week.*

75. MECHANICAL LABORATORY.—A course arranged for students in Chemical Engineering. Calibration of instruments; tests of engines; measurement of flow of water; tests of lubricants. Course 83 is prerequisite. †*Three hours a week.*

77, 78. MECHANICAL LABORATORY.—A course arranged for students in Electrical Engineering. Calibration of instruments; testing of strength of materials; testing of steam engines, gas engines, hydraulic testing. Course 84 is prerequisite. †*Three hours a week.*

79. HEAT ENGINEERING.—Laws of thermodynamics; laws of gases, saturated and superheated vapors; Carnot's Rankine's, and actual steam engine cycles; use of steam tables; steam calorimetry; with illustrative practical problems. Mathematics 8 and Physics 1 and 2 are prerequisites. *Three hours a week.*

80. HEAT ENGINEERING.—Simple and compound steam engines; flow of steam; air compressors; flow of air; refrigeration. Course 79 is a prerequisite. *Three hours a week.*

81. HEAT ENGINEERING.—A continuation of Courses 79 and 80 dealing with steam turbines and gas engines; considerations affecting the design and efficiency of operation of heat motors. *Three hours a week.*

82. POWER PLANTS.—Fuels and combustion; types, operation, and arrangement of power plant equipment; design, costs, operating expenses, and economics of steam and gas power plants. Course 81 is a prerequisite. *Two hours a week.*

83. HEAT ENGINEERING.—A short course for chemical engineers covering the laws of thermodynamics and their application to heat motors, air compressors, refrigerating machinery and power plant equipment. *Three hours a week.*

84. HEAT ENGINEERING.—A course similar to Course 79, given to Electrical Engineers. *Three hours a week.*

85. HEAT ENGINEERING.—Simple and compound steam engines; steam turbines; gas engines; gas producers; fuels and combustion; steam and gas plant power equipment and operation. For students in Electrical Engineering. Course 84 is prerequisite. *Three hours a week.*

88. ENGINE DESIGN.—A study of problems affecting the design of a steam or gas engine with regard to their bearing on general machine design. An engine is partially designed in the drawing room. Courses 67 and 81 are prerequisite. *\*Six hours a week.*

92. HEATING AND VENTILATION.—Course 80 is a prerequisite. *Three hours a week* for nine weeks.

94. HYDRAULIC MACHINERY.—Hydraulic turbines; water wheels; various features of hydraulic power plant development. *Three hours a week* for nine weeks.

96. SEMINAR.—Preparation, presentation, and discussion of papers on leading engineering topics. *One hour a week.*

98. FACTORY ORGANIZATION AND MANAGEMENT.—Lectures and assigned reading bearing upon various types of organization for industrial enterprises; planning and equipping of factory plants; systems of management; factory design and construction. *Two hours a week.*

INSPECTION TRIP.—A visiting trip of one week's duration to various manufacturing and power plants. This trip is open only to seniors who are eligible for graduation. The expense to each student is in the neighborhood of forty-five dollars. A complete schedule of the trip is prearranged and a member of the department staff is in charge of the party.

THESIS.—The results of some original investigation or design presented in proper form. The subject should be selected early in the fall semester of the senior year. See regulations regarding degrees.

## MECHANICS

PROFESSOR WESTON

2. MECHANICS.—An elementary course in the fundamental principles of statics, kinematics and kinetics, with applications to practical problems involving frictional resistance, the transmission of power by belts, and the stresses and strains in beams, trusses, shafts, and columns. For students in Chemical Engineering. *Three hours a week.*

51, 52. MECHANICS.—The fundamental principles of statics, kinematics, and kinetics, with applications to practical problems; exercises in finding center of gravity and moment of inertia; the study of stresses and strains in bodies subject to tension, compression, and shearing; the common theory of beams, including shearing force, bending moment, and elastic curves; torsional stresses and theories of stress in long columns. *Five hours a week.*

101. ADVANCED MECHANICS.—General principles of kinematics, statics, and kinetics; the mathematical theory of elasticity; the theory of the potential function with applications to problems in gravitation, hydro-mechanics, etc. *Three hours a week.*

## Required Courses

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### MILITARY SCIENCE AND TACTICS

MAJOR JAMES; CAPTAIN ADAMS; CAPTAIN NORRIS; CAPTAIN NICHOLS;  
MR. KIDNEY; FIRST SERGEANT STROTHER; SERGEANT ASHLEY

Military instruction is required by law. The department is in charge of an officer of the Regular Army, detailed by the President of the United States, as Professor of Military Science and Tactics. The course maintained is that of an Infantry Unit of the Reserve Officers' Training Corps, the purpose of which is to train officers for infantry. Graduates fulfilling the requirements of law are eligible for commission in the Infantry Officers' Reserve Corps of the Army. The students are organized into an infantry regiment, including band, officered by cadets selected for character, soldierly bearing, and military efficiency. Instruction is carried on under rules and regulations prescribed by the Secretary of War in accordance with law.

Uniforms, arms, and equipment of the latest model of the U. S. Army are furnished by the Government.

The uniform prescribed is as follows:

For cadet commissioned officers, the olive-drab service uniform prescribed for infantry officers of the United States Army, except that "R. O. T. C." and "Maine" insignia are used; for other than commissioned officers, the olive-drab service uniform prescribed for enlisted men of the United States Army, except that "R. O. T. C." and "Maine" insignia are used.

Cadets are required to wear the uniform when on military duty.

In the following schedule of courses, numbers 1 to 4, inclusive, are required of all physically fit male freshmen and sophomores, except students in the School Course in Agriculture. Courses 5 and 6 are elective for juniors; and Courses 7 and 8 are elective for seniors. The required courses cover two years' instruction as laid down in War Department regulations. The elective courses also cover two years, and once entered upon become a prerequisite for graduation. Having completed Courses 1 to 4, inclusive, students electing to continue their military training who comply with the requirements of law and regulations are entitled to money commutation of subsistence at a rate fixed by the Secretary of War.

The courses are so arranged that the standard required will be that for a platoon leader in an infantry company.

The program of training prescribes graded courses, covering a period of four years, as follows:

## BASIC COURSE

Freshman year, Courses 1 and 2; sophomore year, Courses 3 and 4.

## ADVANCED COURSE

Junior year, Courses 5 and 6; senior year, Courses 7 and 8.

## BASIC COURSE—THREE HOURS A WEEK

## 1. MILITARY TRAINING—

## (a) THEORETICAL INSTRUCTION:

*Infantry Drill Regulations:* Principles and methods of instruction in close and extended order, to include the schools of the soldier and squad.

*Rifle marksmanship:* Lectures and talks explanatory of the general scheme and principles of the subject.

*Military courtesy:* (1) Lectures on fundamental principles of military discipline.

(2) Relation of courtesy to discipline and efficiency.

(3) The Military Courtesies of the Army of the United States.

(4) Demonstrations of correct and incorrect manner of rendering courtesies.

## (b) PRACTICAL INSTRUCTION:

*Infantry Drill:* (1) Close and extended order drills.

(2) Participation in military ceremonies.

*Rifle marksmanship:* (1) Various steps in rifle marksmanship.

(2) Nomenclature and care of the rifle.

(3) Effect of weather conditions, etc.

(4) Gallery practice.

(5) Methods of coaching.

(6) General rules and definitions.

*Physical Training:* (1) Recruit instruction in the setting-up exercises.

(2) Talks on the need for and object of physical training.

(3) Mass games and athletics.

## 2. MILITARY TRAINING—

## (a) THEORETICAL INSTRUCTION:

*Infantry Drill Regulations:* Principles and methods of instruction, to include the schools of the platoon and company.



*Rifle marksmanship:* Continuation of Course 1.

*Scouting and Patrolling:* Principles governing the composition, formation, and operations of reconnoitering patrols by day and at night. Differences in methods of operating in open warfare and warfare of position.

(b) PRACTICAL INSTRUCTION:

*Infantry Drill:* Continuation of Course 1 (b) (1) and (2).

*Rifle marksmanship:* Continuation of Course 1 (b) (1) to (6).

*Scouting and Patrolling:* Problems and exercises in scouting and patrolling on sand table and terrain.

*Physical Training:* Continuation of Course 1 (b) (1) to (3).

3. MILITARY TRAINING—

(a) THEORETICAL INSTRUCTION:

*Map Reading and Military Sketching:* The instruction necessary to enable the student to read military maps with facility and to make road, out-post, and position sketches.

*Infantry Weapons:* (1) The bayonet—Lessons on the bayonet as an offensive weapon. The spirit of the bayonet. Team work.

(2) The automatic rifle—Lessons on the history, characteristics, and marksmanship of the weapon and the organization and equipment of auto-riflemen.

(3) Hand and rifle grenades—Lessons on the construction and handling of the weapons, including explosives.

(b) PRACTICAL INSTRUCTION:

*Map Reading and Military Sketching:* Problems in map reading. Visibility of points, areas, etc. Route sketching.

*Infantry Weapons:* (1) The bayonet—Bayonet training to include the assault course.

(2) Automatic Rifle—Mechanics (stripping, assembling, and functioning). Immediate action. Marksmanship to include instruction up to range practice.

(3) Hand and Rifle Grenades—Individual instruction with dummy and improvised grenades.

*Command and Leadership:* Exercise of command appropriate to various grades of non-commissioned officers of an infantry platoon.

## 4. MILITARY TRAINING—

## (a) THEORETICAL INSTRUCTION:

*Map Reading and Military Sketching:* Continuation of Course 3 (a).

*Musketry:* Weapons of the infantry squad. The theory of fire. Range estimation, target designation, and fire distribution. Fire discipline. Fire control. Control of movement. Conduct of fire in the attack and duties of leaders to include the section. Conduct of fire in the defense and duties of leaders to include the section. Combat practice (use of landscape targets, etc.).

*Military Hygiene, Sanitation, and First Aid:* Personal hygiene. Foods and their preparation. Hygiene of the kitchen, barracks, and camp. Selection and protection of drinking water. Hygiene of moving troops. The causes of disease. The prevention and control of epidemics. The prevention of mental and nervous diseases. Sanitation of localities, and the selection and drainage of camp sites. Disposal of refuse. First aid to the injured. Resuscitations. So much of the above as is necessary for an intelligent understanding of the fundamental importance of physical, mental, and moral soundness in the soldier. Physical requirements for military service. Comparative statistics of physical fitness of American citizens for military service in the World War.

## (b) PRACTICAL INSTRUCTION:

*Map Reading and Military Sketching:* Out-post and position sketching. Combined sketching.

*Musketry:* Exercises, demonstrations and tests, using sand table, landscape target, and terrain.

*Military Hygiene, Sanitation, and First Aid:* Sand table demonstrations and problems in camp sanitation. Construction of miniature models of sanitary appliances, camp sites, expedients, etc. Demonstrations and exercises in First Aid to the injured.

*Command and Leadership:* Continuation of Course 3 (b).

ADVANCED COURSE—FIVE HOURS A WEEK

5. MILITARY ART—

(a) THEORETICAL INSTRUCTION:

*Elements of Field Engineering:* Instruction to include the principles and methods of military field engineering in the various types of trenches, obstacles, shelters, machine-gun emplacements, observation posts, etc. Organization of working parties and tasks. Selection of location for works of defense. Concealment and camouflage.

(b) PRACTICAL INSTRUCTION:

*Field Engineering:* Solution of Military Engineering problems based on (a), above. Demonstrations on sand table. Construction on sand table of miniature models of types of trenches, obstacles, and other defensive works. Reconnaissance, location, and laying out of works on the ground.

*Command and Leadership:* Exercise of command and leadership appropriate to grades of sergeant and lieutenant.

6. MILITARY ART—

(a) THEORETICAL INSTRUCTION:

*Accompanying Weapons of the Infantry:* (1) The Machine Gun—Development of the machine gun. The Theory of Fire. Targets and ranges. Direct, indirect, and overhead fire, and night firing.

(2) The 37 mm. Gun (One-pounder)—History of the weapon. Direct, indirect, and overhead fire. Observation and adjustment of fire.

(3) The Light Mortar—History of the weapon. Laying the mortar. Kinds of fire. Observation and adjustment of fire.

*Military Law and Rules of Land Warfare:* (1) Military Law—Definition. Sources and kinds of military jurisdiction. Classification and composition of courts-martial. Exercise of military jurisdiction. Persons subject to military law. Articles of War explained. Procedure before trial. Procedure of courts-martial. Evidence. Sentences. Punishment without trial.

(2) Rules of Land Warfare—Lectures on general principles.

(b) PRACTICAL INSTRUCTION:

*Accompanying Weapons:* (1) The Machine Gun—Nomenclature, use, care, and repair of machine guns and accessories. Mechanics (stripping, assembling, and functioning). Immediate action. Exercises and demonstrations in direct and indirect fire. Use of instruments. Determination of ranges. Recognition and designation of service targets.

(2) The 37 mm. Gun (One-pounder)—Mechanics (stripping, assembling, and functioning). Construction, care, and operation of the gun. Types of ammunition. School of the one-pounder section. Exercises and demonstrations in direct and indirect fire.

(3) The Light Mortar—Construction, care, and operation of the gun. Mechanics (stripping, assembling, and functioning of the gun. Assembling and functioning of bombs. Light mortar emplacements. School of the Mortar Section.

*Military Law:* Moot-court exercises.

*Command and Leadership:* Continuation of 5 (b).

7. MILITARY ART—

(a) THEORETICAL INSTRUCTION:

*Tactics:* (1) General view of the organization and conduct of the battalion and higher units.

(2) Principles governing the organization, armament, equipment, and conduct of the rifle, machine gun, howitzer, and headquarters companies, in offensive and defensive combat.

(3) Tactical principles governing the conduct of the platoon and smaller units in offensive and defensive combat. Details of organization, equipment, and tactical employment of the rifle company, machine-gun company, and howitzer company platoons. Combined action.

(b) PRACTICAL INSTRUCTION:

*Tactics:* Demonstrations, exercises, and problems on sand table, map, and terrain in subjects covered in (a) (1) to (3), above.

*Command and Leadership:* Exercise of command and leadership appropriate to grades of sergeant and lieutenant.

## 8. MILITARY ART—

## (a) THEORETICAL INSTRUCTION:

*Tactics:* Principles governing the employment and details of conduct of covering detachments in open and position warfare.

*Military History:* Facts of American Military History, including the World War, as to: (1) The sources of authority for our Military Establishment; (2) the development of the military resources and the military strength of the United States; (3) the state of national preparedness for war at critical periods in the History of the United States; (4) the cost of American wars in relation to national unpreparedness.

Lessons from American Military History, as to: (1) The traditional military policy of the United States; (2) the need for national organization for the military defense of the nation.

*Administration:* Lectures on the practical administration of a company, including the interior economy and the management of the soldier.

## (b) PRACTICAL INSTRUCTION:

*Tactics:* Demonstrations, exercises, and problems on sand table, map, and terrain in subject as outlined in 8 (a).

*Administration:* Practical work in the preparation of papers pertaining to the administration of a company. So much as a lieutenant should know concerning military correspondence, preparation and application of War Department forms, use, and disposition of orders, bulletins, and circulars.

*Command and Leadership:* Continuation of Course 7 (b).

In addition to the above courses, MILITARY ART 9 and MILITARY ART 10 have been established and reserved for selected seniors and juniors and ex-service men who, being unable for various reasons to register for the Advanced Course, desire to continue their military work as instructors. These students are not members of the R. O. T. C. and are not entitled to draw uniforms from the Government. Their work consists entirely in theoretical and practical instruction of students in the Basic Course.



## PHYSICAL EDUCATION AND ATHLETICS

GRADUATE MANAGER BRYANT; ASSOCIATE PROFESSOR FLACK; ASSISTANT PROFESSOR SCHENKEL; MRS. BAILEY; MR. BRICE; MR. CLARK

The organization of this department has been planned primarily to give the student such supervision, instruction, and experience as will enable him to establish and conserve his own health while in college, and to lead him to become an important factor in the advancement of public health during his graduate years.

### 1, 2. PHYSICAL EDUCATION AND ATHLETICS.

1. *Individual Instruction in Hygiene.*—This is given in the form of advice based upon the physical examinations and inspections of the student. Physical and medical examinations are given to all students in their freshman year. These examinations are utilized for the purpose of finding defects, the proper treatment of which may add to the health and efficiency of the student. Advice given at this time is recorded and when a student reports for conference, the advice on file is followed up. Students found with remediable physical defects are required to report in conference with evidence that their condition has been brought to the attention of the parent or family physician.

2. *Physical Training.*—Regular classes in gymnasium work are held daily and this work is so designed as to give the student general training. All first year men and women students and the second year students in home economics are required to attend three classes each week. One of the three hours each week is to be in the form of recreation.

It is the aim of this department to encourage participation in some form of athletics on the part of all students rather than the few. By the organization of interclass and intramural athletic teams, practically every man and woman is given an opportunity to indulge in some form of health-giving competitive sport.

3. *Athletics.*—Student athletics are under the supervision of the Athletic Board, composed of members of the faculty, alumni, trustees, and students; and students paying the regular tuition fee are admitted to all contests held on Alumni Field. Teams are maintained in football, cross-country, relay, basketball, track, tennis, and baseball. The management of athletics is in the hands of a graduate manager who carries out the policies of the Athletic Board.

## Maine Agricultural Experiment Station Council

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WARNER JACKSON MORSE, Ph.D.	<i>President</i>
ORA GILPATRICK, Houlton	<i>Secretary</i>
THOMAS EDWARD HOUGHTON, Fort Fairfield	<i>Committee</i>
FRANK EDWARD GUERNSEY, Dover	<i>of</i>
LEON STEPHEN MERRILL, M.D.	<i>Trustees</i>
FRANK PORTER WASHBURN, Perry	<i>Dean of the College of Agriculture</i>
EUGENE HARVEY LIBBY, Auburn	<i>Commissioner of Agriculture</i>
WILSON HIRAM CONANT, Buckfield	<i>State Grange</i>
JOHN WINTHROP LELAND, Dover	<i>State Pomological Society</i>
WILLIAM GEORGE HUNTON, Portland	<i>State Dairymen's Association</i>
LEONARD CLEMENT HOLSTON, Cornish	<i>Maine Seed Improvement Association</i>
JAMES MONROE BARTLETT, M.S.	<i>Maine Livestock Breeders' Association</i>
EDITH MARION PATCH, Ph.D.	<i>Members</i>
JOHN WHITTEMORE GOWEN, Ph.D.	<i>of the</i>
ELMER ROBERT TOBEY, M.S.	<i>Station Staff</i>
DONALD FOLSOM, Ph.D.	
KARL SAX, M.S.	

## Maine Agricultural Experiment Station

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### STATION STAFF

- WARNER JACKSON MORSE, Director and Plant Pathologist.  
B.S., Vermont, 1898; M.S., 1903; Ph.D., Wisconsin, 1912
- ALICE WOODS AVERILL, Laboratory Assistant.
- JAMES MONROE BARTLETT, Chemist.  
B.S., Maine, 1880; M.S., 1883
- MILDRED REBECCA COVELL, Clerk in Biology.
- DONALD FOLSOM, Associate Plant Pathologist.  
A.B., Nebraska, 1912; A.M., Minnesota, 1914; Ph.D., 1917
- ESTELLE MARCHO GOGGIN, Clerk.
- MARJORIE EUNICE GOOCH, Scientific Aid.  
B.S., Maine, 1919
- BEATRICE GOODINE, Laboratory Assistant.
- JOHN WHITTEMORE GOWEN, Biologist.  
B.S., Maine, 1914; M.S., 1915; Ph.D., Columbia, 1917
- CHARLES CLYDE INMAN, Clerk.
- \*HUGH CURTIS MCPHEE, Scientific Aid.  
B.S., Maine, 1918; M.S., Maine, 1921
- VIOLA LOUISE MORRIS, Seed Analyst.
- MARY LEONICE NORTON, Clerk.
- EDITH MARION PATCH, Entomologist.  
B.S., Minnesota, 1901; M.S., Maine, 1910; Ph.D., Cornell, 1911
- EDGAR RAYMOND RING, Superintendent of Aroostook Farm.  
A.B., Maine, 1918
- KARL SAX, Biologist.  
B.S., Washington State, 1916; M.S., Harvard, 1917
- WELLINGTON SINCLAIR, Superintendent of Highmoor Farm.
- ELMER ROBERT TOBEY, Associate Chemist.  
B.S., Maine, 1911; M.S., 1917; Ch.E., Maine, 1920
- CHARLES HARRY WHITE, Assistant Chemist.  
Ph.C., Maine, 1897

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\*Resigned November 1, 1921

## GOVERNMENT OF THE STATION

By authority of the trustees the affairs of the Station are considered by the Station Council, composed of the President of the University, three members of the Board of Trustees, the Director of the Station, the heads and associates of the various departments of the station, the Dean of the College of Agriculture, the Commissioner of Agriculture, and one member each from the State Pomological Society, the State Grange, the State Dairyman's Association, the Maine Live Stock Breeders' Association, and the Maine Seed Improvement Association. The recommendations of the Council are referred to the trustees for final action. The Director is the executive officer of the Station and the other members of the staff carry out the lines of research that naturally come under their departments.

## INCOME

The income of the Station is derived from the following sources: Federal and State appropriations, payments for inspection analyses made for the Commissioner of Agriculture and from the sale of farm produce. The Federal income, known as the Hatch and Adams Funds, totals \$30,000 annually. The State appropriations for animal husbandry investigations, investigations upon Aroostook Farm, and upon Highmoor Farm are \$5,000 each. Through appropriations to the University the State provides for the cost of printing Station publications.

## OBJECT

The purpose of the agricultural experiment stations is defined in the Act of Congress establishing them as follows:

"It shall be the object and duty of said experiment stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation: the analysis of soils and water; the chemical composition of manures, natural and artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese, and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective states or territories."

The work that the Station can undertake from the Adams Act fund is more restricted, as the fund can "be applied only to paying the necessary expenses for conducting original researches or experiments bearing directly on the agricultural industry of the United States, having due regard to the varying conditions and needs of the respective states and territories."

## EQUIPMENT

Most of the Station offices and laboratories are in Holmes Hall, described on page 20. The station is well equipped in laboratories and apparatus, particularly in the lines of biological, chemical, entomological, horticultural, pomological, plant pathological, and poultry investigations. It has extensive collections illustrating the botany and entomology of the State. It has a library of over 5000 volumes comprising agricultural and biological journals and publications of the various experiment stations.

## HIGHMOOR FARM

The State Legislature of 1909 purchased a farm upon which the Maine Agricultural Experiment Station "shall conduct scientific investigations in orcharding, corn, and other farm crops." The farm is situated in the counties of Kennebec and Androscoggin, largely in the town of Monmouth. It is on the Farmington branch of the Maine Central Railroad, two miles from Leeds Junction. A flag station, "Highmoor," is on the farm.

The farm contains 225 acres, about 200 of which are in orchards, fields, and pastures. There are in the neighborhood of 3,000 apple trees upon the place which have been set from 20 to 30 years. Fields that are not in orchards are well adapted to experiments with corn, potatoes, and similar farm crops. The house has two stories with a small wing, and contains about fifteen rooms. It is well arranged for the station offices and for the home of the farm superintendent. The barns are large, affording storage for hay and grain. The basement affords limited storage for apples, potatoes, and roots.

## AROOSTOOK FARM

By action of the Legislatures of 1913 and 1915 a farm was purchased in Aroostook County for scientific investigations in agriculture to be under "the general supervision, management and control" of the Maine Agricultural Experiment Station. The farm is in the town of Presque Isle, about two miles south of the village, on the main road to Houlton.



The Bangor and Aroostook railroad crosses the farm. A flag station, "Aroostook Farm," makes it easily accessible by rail.

The farm contains about 275 acres, about half of which is cleared. The eight room house provides an office, and a home for the farm superintendant. The large barn affords storage for hay and grain and has a large potato storage house in the basement.

## INVESTIGATIONS

The Station continues to restrict its work to a few important lines, believing that it is better for the agriculture of the State to study thoroly a few problems than to spread over the whole field of agricultural science. It has continued to improve its facilities and segregate its work in such a way as to make it an effective agency for research in agriculture. Prominent among the lines of investigation are studies upon the food of man and animals, the diseases of plant and animals, breeding of plants and animals, investigations in animal husbandry, orchard and field experiments, poultry investigations, and entomological research.

## INSPECTIONS

The Commissioner of Agriculture is the executive of the laws regulating the sale of agricultural seeds, commercial feeding stuffs, commercial fertilizers, dairy products, drugs, foods, fungicides, and insecticides. The law requires the Commissioner to collect samples and have them analyzed at the Station. The law also requires the Director of the Station to make the analyses and publish the results.

## PUBLICATIONS

The Station issues three series of publications: Bulletins, Official Inspections, and Miscellaneous Publications.

The results of the work of investigation are published in part in scientific journals at home and abroad, in U. S. Department of Agriculture publications, and in bulletins of the Station. All of the more important and immediately practical studies are published in the Station Bulletins. The Bulletins for a year form a volume of 300 to 400 pages and together make up the Annual Report. Bulletins are sent to the press of the State, to exchanges, libraries, and scientific workers. Bulletins which contain matter of immediate value to practical agriculture are sent free to residents of Maine whose names are on the permanent mailing list.

The results of the work of inspection are printed in pamphlet form and are termed Official Inspections. Official Inspections are sent to dealers

within the State; those that have to do with fertilizers, feeding stuffs, and seeds are sent to farmers, and those reporting food and drugs are sent to a list of several thousand women within the State.

The Miscellaneous Publications consist of newspaper bulletins, circulars, and similar fleeting publications. These are sent to different addresses according to the nature of the subject matter.

On request, the name of any resident of Maine will be placed on the permanent mailing list to receive either or both the Bulletins and Official Inspections as they are published.

## Summer Term

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The work of the summer term began in 1902 and continued without interruption until 1918. During the summers of 1918 and 1919 it was omitted on account of war conditions. The session lasts for six weeks and university credit is given to such students as complete prescribed courses. Unless the conditions are exceptional students register for six semester hours credit. Nearly all the departments represented in the College of Arts and Sciences offer courses in the summer term. The work is planned to meet the needs of superintendents and teachers who desire to review certain courses, or pursue subjects which may be helpful to them in connection with their work. Especial attention is given to such courses as are required by the State Department of Education. Arrangements have been made in several departments whereby properly qualified college graduates may obtain the degree of Master of Arts by registration in four consecutive summer terms. Normal school graduates, who are regularly admitted to junior standing in our College of Arts and Sciences, may take part of their work in the summer session.

Registration in advance is not required but students who are planning to attend the summer term should send for a bulletin (issued about March 1, 1922), and for additional information should address The Director, James S. Stevens, Orono, Maine.

## Alumni Associations

### GENERAL ASSOCIATION

President, Allen W. Stephens, 1899, 244 Madison Ave., New York City  
 Vice President, Norman H. Mayo, 1909, Aberthaw Const. Co., 27 School St., Boston, Mass.

Clerk, Chas. E. Crossland, 1917, Orono

Executive Secretary, Wayland D. Towner, 1914, Alumni Hall, Orono

Treasurer, James A. Gannett, 1908, Orono

### ALUMNI COUNCIL

#### MEMBERS AT LARGE

	Term expires
George H. Hamlin, 1873, Orono.....	1922
A. H. Brown, 1880, Old Town.....	1922
L. C. Southard, 1875, 601 Tremont Bldg., Boston, Mass.....	1923
E. W. Morton, 1909, Presque Isle.....	1923
W. H. Jordan, 1875, Orono.....	1924
P. B. Palmer, 1896, Orono.....	1924
J. F. Gould, 1892, 42 W. Broadway, Bangor.....	1924
E. H. Kelley, 1892, Orono.....	1924
C. Parker Crowell, 1898, 60 Elm St., Bangor.....	1924
Mrs. Mildred Prentiss Wright, 1911, 188 Elm St., Bangor....	1924
(Fills unexpired term of Miss Joanna C. Colcord, 1906)	
Paul L. Bean, 1904, 11 Lisbon St., Lewiston.....	1925

#### *College of Law*

James M. Gillin, 1913, 12 Columbia Bldg., Bangor.....	1924
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#### *College of Arts and Sciences*

Harry E. Sutton, 1909, 161 Devonshire St., Boston, Mass.....	1924
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#### *College of Agriculture*

P. W. Monohon, 1914, %H. J. Frost & Co., 90 Chambers St., New York City.....	1924
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*College of Technology*

E. R. Berry, 1904, General Electric Co., W. Lynn, Mass.... 1923

*Alumni Representative to Board of Trustees*

Hosea B. Buck, 1893, 1 Columbia Bldg., Bangor

*Ex-Officio Members*

Allen W. Stephens, 1899, 244 Madison Ave., New York City 1922

President of the General Alumni Association

Norman H. Mayo, 1909, Aberthaw Const. Co., 27 School St.,  
Boston, Mass. Vice President of the General Alumni Ass'n 1922

*Executive Committee*

L. C. Southard (Chairman), Harry Sutton, E. R. Berry, Paul L. Bean, and  
George H. Hamlin

## SPECIAL ASSOCIATIONS

## COLLEGE OF LAW

President, James M. Gillin, L. 1913, 12 Columbia Bldg., Bangor; Secretary,  
Mark A. Barwise, 1913, 9 Columbia Bldg., Bangor

## SHORT COURSE ALUMNI

President, Bertram Tomlinson, 1918sc, Machias; Secretary, H. Styles  
Bridges, 1918sc, Ellsworth

## MAINE TEACHERS

No officers elected for 1921-22

## LOCAL ASSOCIATIONS

Androscoggin Valley—President, Paul L. Bean, 1904, 11 Lisbon St., Lew-  
iston; Secretary, Harold Cooper, 1915, 14 Elm St., Auburn

Aroostook County—President Clayton Steele, 1911, Presque Isle; Secre-  
tary, Lewis H. Kriger, 1916, Fort Fairfield

Boston—President, Norman H. Mayo, 1909, 27 School St., Boston, Mass.;  
Secretary J. A. McCusker, 1917, 76 Adams St., Braintree, Mass.

Boston Club University of Maine Women—Secretary, Vera L. Mersereau,  
1918, 8 Russell Rd., West Somerville, Mass.



- Central Maine—President, A. S. Page, 1900, 30 Winter St., Waterville;  
Secretary, C. A. Blackington, L. 1914, 120 Main St., Waterville
- Connecticut Valley—President, Harry Elder, L. 1909, 423 Main St., Springfield, Mass.; Secretary, R. W. Crocker, 1910, 133 Springfield St., Springfield, Mass.
- Dominion—President, Albert Guy Durgin, 1908, 52 The Drive, Sault Ste. Marie, Ontario, Canada; Secretary, Manley W. Davis, 1919, Care Abitibi Power & Paper Co., Iroquois Falls, Ontario
- Eastern New York—President, B. R. Connell, 1907, 417 Becker St., Schenectady, N. Y.
- Golden Gate—President, W. C. Hammatt, 1893, 202 Hearst Bldg., San Francisco, Cal.; Secretary, H. H. Hoxie, 1906, %Holabird Elec. Co., 582 Market St., San Francisco, Cal.
- Hancock County—President, Guy E. Torrey, 1909, Bar Harbor; Secretary, David Rodick, 1917, Bar Harbor
- Hartford—President, W. C. Holden, 1892, 247 Collins St., Hartford, Conn.; Secretary, W. C. Sisson, 1919, 36 Irving St., Hartford, Conn.
- Kennebec County—President, W. R. Pattangall, 1884, Augusta; Secretary, Arthur W. Abbott, 1914, Augusta
- Knox County—President, Dr. B. E. Flanders, 1908, Rockland; Secretary, Ruth C. Hunter, 1920, Rockland
- New York—President, G. O. Hamlin, 1900, 171 Madison Ave., New York City; Secretary, C. M. Weston, 1908, Rm. 1303, 200 Fifth Ave., New York City
- Oxford County—President, C. R. Atwood, 1914, 582 Prospect Ave., Rumford; Secretary, P. M. McDonald, L. 1913, Congress St., Rumford
- Penobscot Valley—President, J. Harvey McClure, 1905, 45 Sixth St., Bangor; Secretary, Ralph Whittier, 1902, 54 Forest Ave., Bangor
- Philadelphia—President, Ernest L. Watson, 1901, Paoli, Pa.; Secretary, Henry C. Pritham, 1901, 5436 No. 11th St., Philadelphia, Pa.
- Pittsburgh—President, Warren McDonald, 1912, 1123 Penna. Sta., Pittsburgh, Pa.; Secretary, R. O. Shorey, 1913, 1123 Penna. Sta., Pittsburgh, Pa.
- Somerset County—President, LeRoy Folsom, 1895, Norridgewock; Secretary, Gerald C. Marble, 1917, Cor. Madison Ave. & High St., Skowhegan
- Southern California—President, L. A. Boadway, 1891, 268 E. Colorado St., Pasadena, Cal.; Secretary, E. M. Loftus, 1914, 400 Metropolitan Bldg., Los Angeles, Cal.
- Waldo County—President, Charles S. Bickford, 1882, Belfast; Secretary, Will R. Howard, 1882, Belfast
- Washington—President, L. A. Rogers, 1896, Wardman Park Hotel, Washington, D. C.; Secretary, H. W. Bearce, 1906, Care Bureau of Science, Washington, D. C.

- Western—Secretary, H. M. Soper, 1903, 1615 Harris Trust Bldg., Chicago, Ill.
- Western Maine—President, Edward E. Chase, 1913, 208 Middle St., Portland; Secretary, Myron C. Peabody, 1917, Care Sagadahoc Farms, So. Portland
- White Mountain—President, Dr. H. H. Marks, 1898, 214 Prospect St., Berlin, N. H.; Secretary, W. W. Webber, 1916, 151 High St., Berlin, N. H.
- Worcester County—President, C. H. Lekberg, 1907, 110 Foster St., Worcester, Mass.; Secretary, Herman R. Clark, 1914, 1 Merchant St., Worcester, Mass.
- York County—President, F. R. Chesley, L. 1911, 402 Main St., Saco; Secretary, Robert Moore, 1916, 292 Alfred St., Biddeford

## CLASS SECRETARIES

- 1872 E. J. Haskell, 98 Bridge St., Westbrook
- 1873 John M. Oak, 13 Third St., Bangor
- 1874 John I. Gurney, 22 Highland St., Dorchester, Mass.
- 1875 A. E. Mitchell, 30 E. 42nd St., New York City
- 1876 E. M. Blanding, 46 Madison St., Bangor
- 1877
- 1878 C. C. Chamberlain, Enderlin, N. D.
- 1879 George P. Merrill, U. S. National Museum, Washington, D. C.
- 1880 A. H. Brown, Old Town Enterprise, Old Town
- 1881 Professor H. W. Brown, 34 Winter St., Waterville
- 1882 W. R. Howard, Belfast
- 1883 Professor L. H. Merrill, 100 Main St., Orono
- 1884 L. W. Cutter, 65 State St., Bangor
- 1885 Dean J. N. Hart, University of Maine, Orono
- 1886 H. S. French, 211 Crafts St., Newtonville, Mass.
- 1887 J. S. Williams, Guilford
- 1888 H. F. Lincoln, Care J. G. White Corp., 43 Exchange Pl., New York City
- 1889 Dr. J. S. Ferguson, 330 W. 28th St., New York City
- 1890 Edward H. Kelley, Alumni Hall, Orono
- 1891 W. M. Bailey, 88 Broad St., Boston, Mass.
- 1892 George F. Rich, 173 Main St., Berlin, N. H.
- 1893 Harry M. Smith, 23 Second St., Bangor
- 1894
- 1895 W. W. Chase, United States Shipping Board, Emergency Fleet Corporation, 115 Broadway, New York City
- 1896 Perley B. Palmer, Orono
- 1897 W. L. Holyoke, 719 Broad St., Providence, R. I.

- 1898 W. L. Ellis, Nashua Co-operative Iron Foundry Co., Nashua, N. H.  
1899 Professor A. L. Grover, University of Maine, Orono  
1900 W. N. Cargill, Care The Lumsden & Van Stone Co., South Boston,  
Mass.  
1901 M. B. Merrill, 78 Pleasant St., Meriden, Conn.  
1902 H. E. Cole, Harris Pump & Supply Co., Pittsburgh, Pa.  
1903 Paul D. Simpson, City Hall, Augusta  
1904 A. M. Knowles, U. S. R. R. Administration, 50 Church St., New  
York City  
1905 Professor R. R. Drummond, Orono  
1906 Harry Emery, 78 Exchange St., Bangor  
1907 Elmer J. Wilson, General Electric Co., W. Lynn, Mass.  
1908 E. N. Vickery, Pittsfield  
1909 Deane S. Thomas, 193 Middle St., Portland  
1910 Professor Herman P. Sweetser, Orono  
1911 Fred Nason, 59 Benton Ave., Waterville  
1912 A. L. Deering, Orono  
1913  
1914 P. W. Monohon, %H. J. Frost & Co., 90 Chambers St., New York  
City  
1915 R. H. Fogler, 103 W. 162nd. St., New York City  
1916 W. W. Webber, 151 High St., Berlin, N. H.  
1917 F. O. Stephens, 155 Pleasant St., Auburn  
1918 Thelma Kellogg, Orono  
1919 S. W. Collins, Caribou  
1920 E. P. Jones, East Boothbay  
1921 Winthrop L. MacBride, 8 Avon St., Wakefield, Mass.

## Appointments

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### MEMBERS OF PHI KAPPA PHI

Frank Swan Beale, Eastport; Albert Joseph Bedard, Rumford; Madeline Bird, Rockland; Margaret Blethen, Foxcroft; Marion Katharyn Bragg, Bangor; James Howard Davidson, Guilford; Clarence Holmes Drisko, Columbia Falls; Carol May Hamm, Bangor; Carl Edward Hardy, Bangor; Max Carlton Harmon, Buxton; Lucy Helen Kilby, Eastport; Florence Julia Morrill, Portland; Ernest Deering Ober, Atkinson; Clarence Leslie Partridge, No. Baldwin; Florence Ulmer Salley, Bangor; Ruth Butler Sullivan, Bangor; Martha Lander Woodbury, Dover.

### MEMBERS OF TAU BETA PI

1921

Andrew Adams, Portland; Frederick Earl Baldwin, Peabody, Mass.; Albert Joseph Bedard, Rumford; Stephen William Beeaker, Rumford; Horace Cushman Crandall, Malden, Mass.; James Howard Davidson, Guilford; Clarence Holmes Drisko, Columbia Falls; Erlon Webster Flint, Orono; Sherman Barrett Hall, Camden; Vernon Francis Hobbs, Mattawamkeag; Reginald Melvin Jocylen, Bucksport; Clarence Leslie Partridge, No. Baldwin, James Kenneth Pennell, Bangor; Wesley Clark Plumer, Portland; Elliott Marsellus Staples, Ogunquit; Virgil Elmer Trouant, Augusta; Kenneth Emery Vaughan, Brewer.

1922

Herbert Andrew Brawn, Bath; Franklin Kenneth Chapman, Old Town; Philip Warren Ham, Foxcroft; Lynwood Scott Hatch, Old Town; Harry Laton Jackson, Bath; Robert William Laughlin, Portland; Parker Williams Patterson, Winslow; Homer Franklin Ray, St. Albans; Ian MacNiven Rusk, W. Townsend, Mass.; Perry Rufus Shean, Patten; Andrew Everett Strout, Portland; Max Myer Weisman, Portland.

### MEMBERS OF ALPHA ZETA

1921

Carlton Eugene Brown, Gloucester, Mass.; Joseph Benjamin Chaplin, Cornish; Francis Lawton Foley, Bar Harbor; Carl Edward Hardy, Ban-

gor; Charles Ernest Hotham, Patten; Raymond Harwood Lovejoy, New Sharon; Leon Otis Marshall, Orono; Lawrence Tilton Merriman, Harpswell Ctr.; Ernest Deering Ober, Atkinson; George Clifton Travers, Bangor.

## 1922

Charles Leslie Eastman, Corinna; Jerome Benedict Gantnier, Benedicta; Herbert St. John Torsleff, Bangor; Henry Gilman Webster, Farmington; Charles Wesley Wood, Belfast.

## 1923

Robert Decatur Hastings, Bethel; Melvin Jeffery Holmes, Ocean Grove, N. J.

## GENERAL HONORS

Frank Swan Beale, Eastport; Albert Joseph Bedard, Rumford; Stephen William Beeaker, Rumford; Madeline Bird, Rockland; Margaret Blethen, Foxcroft; Marion Katharyn Bragg, Bangor; Ray Milo Carter, West Hawley, Mass.; James Howard Davidson, Guilford; Clarence Holmes Drisko, Columbia Falls; Carol May Hamm, Bangor; Carl Edward Hardy, Bangor; Max Carlton Harmon, Buxton; Reginald Melvin Jocynlen, Bucksport; Ina Jordan, Seal Harbor; Lucy Helen Kilby, Eastport; Emilie Angelina Kritter, Haverhill, Mass.; Florence Julia Morrill, Portland; Evans Barkley Norcross, Portland; Verna Norton, Caribou; Ralph Waldo Nowland, Gardiner; Ernest Deering Ober, Atkinson; Clarence Leslie Partridge, North Baldwin; Florence Ulmer Salley, Bangor; Katherine Dudley Stewart, Bangor; Ruth Butler Sullivan, Bangor; Harold Benton Swicker, Townsend, Mass.; Augusta Genevieve Violette, Milford; Martha Lander Woodbury, Dover.

## PRIZES AWARDED

Kidder Scholarship, Lynwood Scott Hatch, Old Town.  
New York Alumni Association Scholarship No. 1, Leland Samuel March, Old Town.

New York Alumni Association Scholarship No. 2, Carl Thompson Stevens, Woodfords.

Pittsburgh Alumni Association Scholarship, Jacob Wetmore Bishop, Bowdoinham.

Class of 1873 Prize, Fernald Stanley Stickney, Brownville.

Western Alumni Association Scholarship, Herbert Edmund Bragg, Bangor.

Elizabeth Abbott Balentine Scholarship, Myrtie Ann Bean, Mt. Vernon.



Phi Mu Scholarship, Bernice Smith, Bangor.

Joseph Rider Farrington Scholarship, Herbert St. John Torsleff, Bangor.

Stanley Plummer Scholarship, Ruth Burleigh Shepherd, Dexter.

Walter Balentine Prize, William Straw Hastings, Bethel.

Franklin Danforth Prize, Lucy Helen Kilby, Eastport.

Father Harrington Prize, Marion Laura Day, Bangor.

Washington Alumni Association Watch, William Bangs Cobb, Woodfords.

Penobscot Valley Alumni Association Scholarship, Henry Dyer Small, Charleston.

Track Club Scholarship, Charles Edwin Noyes, Bryant Pond.

Alpha Omicron Pi Alumnae Prize, Alice Mary Keene, Camden.

Sophomore Essay Prize for Men, Fred Montelle Wren, Sherman Mills.

Sophomore Essay Prize for Women, Harriet Weatherbee, Lincoln.

Class of 1908 Commencement Cup, Class of 1882.

Senior Skull Society Scholarship Cup, Lambda Chi Alpha.

Junior Mask Society Scholarship Cup, Sigma Nu.

Charles Anthony Rice Cup, Phi Eta Kappa.

## Commencement

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### FRIDAY, JUNE 3

- 9.00 A. M. Annual Meeting of the Board of Trustees
- 9.30 A. M. Meeting of the Alumni Advisory Council, Library
- 3.00 P. M. Baseball, Maine vs. Tufts, Alumni Field
- 5.00 P. M. Phi Kappa Phi Initiation, Wingate Hall
- 6.00 P. M. Phi Kappa Phi Banquet, Balentine Hall
- 8.00 P. M. President's Reception, Library
- 7.00 P. M. Meeting Fiftieth Anniversary Committee, Alumni Hall

### SATURDAY, JUNE 4, ALUMNI DAY

- 9.30 A. M. Class Day Exercises, Oval in front of Alumni Hall
- 10.00 A. M. Annual Business Meeting of the General Alumni Association, Chapel
- 1.00 P. M. Class Luncheons, The Commons
- 2.30 P. M. Formation Alumni Day Parade, Front of Alumni Hall
- 3.00-4.00 P. M. Class Frolics, Athletic Field
- 4.00 P. M. Baseball, Maine vs. Colby, Alumni Field
- 6.00 P. M. Alumni Banquet, Gymnasium
- 9.00 P. M. University of Maine movies, Chapel, Alumni Hall
- 9.30 P. M. Informal Alumni Hop, Gymnasium

### SUNDAY, JUNE 5

- 10.30 A. M. Baccalaureate Address by Dr. Warren J. Moulton, of the Bangor Theological Seminary

### MONDAY, JUNE 6, COMMENCEMENT DAY

- 9.30 A. M. Commencement Exercises, Address by Dr. Arthur J. Roberts, President of Colby College  
Conferring of Degrees
- 8.00 P. M. Commencement Ball, Gymnasium

## Degrees Conferred

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### College of Agriculture

#### BACHELOR OF SCIENCE

Iva Viola Barker (in Home Economics).....	Auburn
John Stehley Barron (in Forestry).....	Saco
Rachel Leighton Bowen (in Home Economics).....	Bangor
Carlton Eugene Brown (in Horticulture).....	Gloucester, Mass.
Rena Campbell (in Home Economics).....	Sabattus
Joseph Benjamin Chaplin (in Animal Husbandry).....	Cornish
Donald Lewis Coady (in Dairy Husbandry).....	Patten
William Bangs Cobb (in Dairy Husbandry).....	Woodfords
Doris Burkett Eastman (in Home Economics).....	Warren
Francis Lawton Foley (in Animal Husbandry).....	Bar Harbor
Dorothy Lyman Hanington (in Home Economics).....	Calais
Carl Edward Hardy (in Horticulture).....	Bangor
Charles Ernest Hotham (in Dairy Husbandry).....	Patten
Lucy Helen Kilby (in Horticulture).....	Eastport
Chapin Legal (in Horticulture).....	Calais
Carl Augustin LeGrow (in Agronomy).....	Portland
Raymond Harwood Lovejoy (in Horticulture).....	New Sharon
Leon Otis Marshall (in Animal Husbandry).....	Orono
Lawrence Tilton Merriman (in Agronomy).....	Harpwell Center
Florence Julia Morrill (in Home Economics).....	Portland
Ernest Deering Ober (in Dairy Husbandry).....	Atkinson
Ruth Mildram Small (in Home Economics).....	Auburn
Francis Earl Smith (in Agronomy).....	Northampton, Mass.
Raymond Donnell Stephens (in Forestry).....	Auburn
Norman Stanley Tozier (in Dairy Husbandry).....	Fairfield
George Clifton Travers (in Animal Husbandry).....	Bangor
Donald Ross Weeks (in Animal Husbandry).....	Rockland

### College of Arts and Sciences

#### BACHELOR OF ARTS

Ida Mae Anderson (English).....	Island Falls
Madeline Bird (Spanish).....	Rockland
Mildred Tressa Wheaton Bisbee (Mathematics).....	Berlin, N. H.

Henrietta Blackwell (Biology).....	Orono
William Laurence Blake (Economics & Sociology).....	Houlton
Margaret Blethen (French).....	Foxcroft
Temple Ayer Bradley (Economics & Sociology).....	Gloucester, Mass.
Stacy Lloyd Bragdon (Chemistry).....	Gorham
Marion Katharyn Bragg (Latin) .....	Bangor
Mildred Mary Close (English).....	Portland
Paul Franklin Corbin (Mathematics).....	Malden, Mass.
Dewey William Couri (Economics & Sociology).....	Portland
Horace Sears Courtney (Chemistry).....	Boston, Mass.
Helen Frances Curran (English).....	Rumford
Edith Idella Deering (Mathematics).....	Hollis Center
Ella Frances Dunning (English).....	Topsham
John Albert Dunton (Economics & Sociology).....	Skowhegan
Madeleine Gladys Eastman (French).....	Old Town
Orville Morton Emery (Economics & Sociology).....	Bar Harbor
Simon Chandler Fraser (Economics & Sociology).....	Easton
George Auguste Joseph Froberger (Economics & Sociology).....	Augusta
Armand Theophane Gaudreau (Economics & Sociology).....	Lewiston
George Snow Ginsberg (Economics & Sociology).....	Bangor
Francis James Goggin (Economics & Sociology).....	Orono
Edward Prince Hacker (Economics & Sociology).....	Brunswick
Ruby Marie Hackett (French).....	New Vineyard
Carol May Hamm (Latin).....	Bangor
Anna Sophia Harden (French).....	South Brewer
Max Carlton Harmon (German).....	Buxton
Dorothy Endicott Hart (Economics & Sociology).....	Essex, Mass.
Grace Manning Hart (History).....	Essex, Mass.
Walter Edward Hatch (Economics & Sociology).....	North Berwick
Lilla Clarke Hersey (Economics & Sociology).....	Bangor
Leon Howard Johnson (Economics & Sociology).....	Portland
Alice Ward Jones (Spanish).....	Carmel
Anna Josephine Keating (Spanish).....	Camden
Ralph Bartholomew Kelleher (Economics & Sociology).....	Orono
Linwood John Kelley (Economics & Sociology).....	Orono
Emilie Angelina Kritter (German).....	Haverhill, Mass.
Donald Greene Lambert (Mathematics).....	Readfield Depot
Ralph Bradford Lancaster (Economics & Sociology).....	Madison
Elmer Alton LeBlanc (Economics & Sociology).....	Veazie
Philip Allan Libby (Mathematics).....	Gorham
Alton Thaddeus Littlefield (Economics & Sociology).....	Gardiner
Winthrop Lawrence MacBride (Economics & Sociology).....	Portland
John Francis McCabe (Biology).....	Worcester, Mass.
Edward Leo McManus (Economics & Sociology).....	Bangor

Lindsay Jackson March (Economics & Sociology)	Old Town
Gladys Eleanor Maxfield (English)	Bangor
Pauline Esther Miller (English)	Bangor
William Smith Murray (Economics & Sociology)	Hampden Highlands
Robert Denning Newton (Economics & Sociology)	Kent's Hill
Evans Barkley Norcross (Economics & Sociology)	Portland
Clark Perry (Economics & Sociology)	Machias
Christian William Peterson (History)	Portland
Cora Mae Phillips (History)	Northeast Harbor
Warren Hinckley Preble (Economics & Sociology)	Addison
Helen Pierpont Reed (Spanish)	Bangor
Florence Ulmer Salley (French)	Bangor
Lucille Estelle Smith (English)	Brewer
Katherine Dudley Stewart (Mathematics)	Bangor
Ruth Butler Sullivan (Economics & Sociology)	Bangor
Harold Benton Swicker (Education)	Townsend, Mass.
Enid Dorothy Taylor (History)	North Sullivan
Harold Samuel Tibbetts (Economics & Sociology)	Auburn
Herbert Dunbar Tinker (Economics & Sociology)	Orono
Frederick Ray Vaughan (Economics & Sociology)	Cherryfield
Clyde Victor Vining (Economics & Sociology)	Auburn
Augusta Genevieve Violette (English)	Milford
John Philip Waite (Economics & Sociology)	Portland
Effie May Weatherbee (English)	Foxcroft
Hester Mary Wessenger (Latin)	Masardis
Alfred Peter Willett (French)	Orono
Oscar Livermore Whalen (Economics & Sociology)	Eastport
Martha Lander Woodbury (Latin)	Dover

## BACHELOR OF PEDAGOGY

Ina Jordan	Seal Harbor
Verna Norton	Caribou
Ralph Waldo Nowland	Gardiner
Leah May Ramsdell	Lubec
Raymond Clifton Wass	Columbia Falls

## College of Technology

## BACHELOR OF SCIENCE

Andrew Adams (in Civil Engineering)	South Portland
James Campbell Adams (in Mechanical Engineering)	Cherryfield
Paul Shattuck Armstrong (in Chemistry)	Malden, Mass.

Frederick Earl Baldwin (in Electrical Engineering).....Peabody, Mass.  
 Roscoe Hall Barber (in Electrical Engineering).....Portland  
 Frank Swan Beale (in Mechanical Engineering).....Eastport  
 Albert Joseph Bedard (in Civil Engineering).....Rumford  
 Stephen William Beeaker (in Chemical Engineering).....Rumford  
 Alden Wright Berry (in Chemistry).....Stamford, Conn.  
 Percy Lynn Blackwell (in Civil Engineering).....Madison  
 Bernard Bornstein (in Chemical Engineering).....Deering  
 Edward James Bowley (in Civil Engineering).....Sanford  
 Fred Hopkins Brown (in Civil Engineering).....Bangor  
 Stanley Willey Campbell (in Chemical Engineering).....Cherryfield  
 Ray Milo Carter (in Chemistry).....West Hawley, Mass.  
 Roger Clapp Castle (in Electrical Engineering).....Plainville, Conn.  
 Arthur Raymond Chapman (in Chemical Engineering).....Rumford  
 Robert Cohen (in Chemical Engineering).....Taunton, Mass.  
 Leland Rodney Cooley (in Mechanical Engineering).....Solon  
 Merton Clarendon Corson (in Mechanical Engineering).....Bridgton  
 George Wilson Crane (in Civil Engineering).....Foxcroft  
 Percival Bradford Crocker (in Mechanical Engineering) Foxboro, Mass.  
 Raymond Joseph Curran (in Mechanical Engineering).....Bangor  
 James Howard Davidson (in Civil Engineering).....Guilford  
 Howard Alfred Deering (in Mechanical Engineering).....Bath  
 Howard Noyes Dole (in Chemical Engineering).....Haverhill, Mass.  
 Arthur Greenleaf Dow (in Electrical Engineering).....South Paris  
 Clarence Holmes Drisko (in Mechanical Engineering)....Columbia Falls  
 Erlon Webster Flint (in Electrical Engineering).....Orono  
 Samuel Frederick Gordon (in Chemistry).....Lincoln  
 Harry Lowell Greenleaf (in Mechanical Engineering).....Monmouth  
 Sherman Barrett Hall (in Civil Engineering).....Camden  
 Emery Leroy Hamlin (in Civil Engineering).....Portland  
 Randall Alfred Harrington (in Mechanical Engineering)....South Bristol  
 Erling Heistad (in Mechanical Engineering).....Camden  
 Vernon Francis Hobbs (in Civil Engineering).....Mattawamkeag  
 Henry Young Howard (in Electrical Engineering).....Winslow  
 John Millard Hughey (in Chemical Engineering).....Orono  
 Reginald Melvin Jocylen (in Electrical Engineering).....Bucksport  
 Ralph Miles Kendall (in Electrical Engineering).....Biddeford  
 Rufus Brooks King (in Electrical Engineering).....Peabody, Mass.  
 Donald Greene Lambert (in Mechanical Engineering).....Rumford  
 Philip John Leary (in Civil Engineering).....East Lynn, Mass.  
 Bradford Elias Leighton (in Civil Engineering).....Halls Mills  
 Arthur Wilbur Lowell (in Chemistry).....Portland  
 Edward Mack (in Chemistry).....Portland  
 Donald Caldwell Osborne (in Electrical Engineering).....Fort Fairfield



Robert Roak Owen (in Electrical Engineering).....	Auburn
Clarence Leslie Partridge (in Civil Engineering).....	North Baldwin
Henry Joseph Pelletier (in Civil Engineering).....	St. David
James Kenneth Pennell (in Chemical Engineering).....	Bangor
Earl Halcot Perkins (in Civil Engineering).....	Abbot Village
Wesley Clark Plumer (in Electrical Engineering).....	Portland
Harold Edward Pratt (in Chemical Engineering).....	Barre, Mass.
Ralph Augustine Ranger (in Mechanical Engineering).....	Dryden
Edwin Alden Riley (in Chemical Engineering).....	Livermore Falls
Arthur Andrews Ring (in Mechanical Engineering).....	Orono
George Campbell Robinson (in Mechanical Engineering).....	Westbrook
Joseph Sidney Robinson (in Chemical Engineering).....	Houlton
Clarence Winfred Sanborn (in Mechanical Engineering).....	Lynn, Mass.
Raymond James Smith (in Mechanical Engineering).....	Bangor
Elliott Marsellus Staples (in Electrical Engineering).....	Ogunquit
William Stanley Stevenson (in Electrical Engineering).....	Thorndike
Donald Wellington Stuart (in Civil Engineering).....	Houlton
Ernest John Sullivan (in Civil Engineering).....	Orono
Eugene Leo Sullivan (in Electrical Engineering).....	Orono
Carroll Candy Swift (in Mechanical Engineering).....	Waltham, Mass.
Wilfred Avery Taylor (in Electrical Engineering).....	Wareham, Mass.
Newton Bartlett Thompson (in Civil Engineering).....	Waterville
George Maynard Trafton (in Civil Engineering).....	Springvale
Virgil Elmer Trouant (in Electrical Engineering).....	Augusta
Orra Ervin Underhill, Jr. (in Chemistry).....	Portland
Allen Morelen Varney (in Chemistry).....	Gloucester, Mass.
Kenneth Emery Vaughan (in Chemical Engineering).....	Brewer
Thurle Stevens Whitehouse (in Electrical Engineering).....	Portland
Ralph Harold Wood (in Electrical Engineering).....	Togus

### Degrees Out of Course

#### BACHELOR OF SCIENCE

Leslie Albert Boadway.....Pasadena, Calif.  
(As of the Class of 1891)

Willis Lake Harvey (in Electrical Engineering)  
West Philadelphia, Penna.  
(As of the Class of 1909)

#### BACHELOR OF LAWS

James Edward Rhodes, 2nd.....Hartford, Conn.  
(As of the Class of 1911)

## Advanced Degrees

### MASTER OF ARTS

#### IN ENGLISH

Porter Gale Perrin (B.A., Dartmouth, 1917).....	Orono
Louise Faust Thompson (B.A., Colorado, 1920).....	Orono

#### IN MATHEMATICS

Alfred Sanford Adams (B.S., Maine, 1911).....	Orono
Maynard Fred Jordan (B.A., Maine, 1916).....	Orono
Albert Sanger Pratt (B.A., Brown, 1918).....	Orono

#### IN SPANISH

Dorothea Mabel Bussell (B.A., Maine, 1920).....	Old Town
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### MASTER OF SCIENCE

#### IN BIOLOGY

Chauncey Wallace Lord Chapman (B.S., Maine, 1914).....	Orono
Hugh Curtis McPhee (B.S., Maine, 1918).....	South Paris

#### IN CHEMICAL ENGINEERING

Lewis Waldo Gammell (B.S., Maine, 1918).....	Orono
--	-------

#### IN CHEMISTRY

Norman Fitzhugh Eberman (B.S., Franklin and Marshall, 1919).....	Orono
--	-------

#### IN CIVIL ENGINEERING (HIGHWAY ENGINEERING)

Harold Walter Leavitt (B.S., Maine, 1915; C.E., 1918).....	Orono
--	-------

#### IN PHYSICS

Aaron Bless (B.S., Temple, 1918).....	Orono
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### CHEMICAL ENGINEER

Karl Moody Currier (B.S., 1916).....	Ellston, Md.
Eugene Francis Hickson (B.S., 1918).....	Holyoke, Mass.
Harold Chandler White (B.S., 1915).....	Orono

## CIVIL ENGINEER

Frank Herbert Todd (B.C.E., 1882).....San Juan, Porto Rico

## ELECTRICAL ENGINEER

Walter Joseph Creamer (B.S., 1918).....Bangor  
Raleigh Dudley Morrill (B.S., 1909).....Northfield, Vt.

## Certificate

## IN THE SCHOOL COURSE IN AGRICULTURE

George Starrett Burgess.....Union  
Earle Hammond Curtis.....Kennebunk  
Cutler Clark Dobbins.....Plainfield, Vt.  
Harold William Eastman.....Liberty  
Wesley Houghton Evans.....North Bridgton  
Eugene Edison Gannon.....Albion  
Fred Minard Kinney.....Orono  
Melville Reuben Moulton.....Alfred  
Emile Joseph Pelletier.....St. David  
George Wells Thompson.....Kennebunkport

*The following seniors who left the University for Military Service  
are graduated as of the class with which they entered:*

## As of the Class of 1917

Chapin Legal

George Campbell Robinson

## As of the Class of 1919

Frederick Earl Baldwin  
Stacy Lloyd Bragdon  
Howard Noyes Dole  
Arthur Greenleaf Dow  
Armand Theophane Gaudreau  
Carl Edward Hardy  
John Millard Hughey

Ralph Miles Kendall  
Arthur Wilbur Lowell  
Winthrop Lawrence MacBride  
Lawrence Tilton Merriman  
Evans Barkley Norcross  
Thurle Stevens Whitehouse

**As of the Class of 1920**

Dewey William Couri  
Horace Sears Courtney  
James Howard Davidson  
Philip John Leary  
Carl Augustin LeGrow

Philip Allan Libby  
John Francis McCabe  
Herbert Dunbar Tinker  
John Philip Waite

**Honorary Degrees**

George Herbert Hamlin, LL.D.  
Edwin James Haskell, LL.D.  
Mark Leslie Hersey, LL.D.  
Warren Joseph Moulton, LL.D.  
Arthur Jeremiah Roberts, LL.D.  
Albert Moore Spear, LL.D.

## Catalog of Students

Major subjects are indicated as follows: Aa. Ancient History and Art, Ag. Agronomy, Ae. Agricultural Education, An. Animal Industry, Bb. Biblical Literature, Bc. Biological Chemistry, Bl. Biology, Ch. Chemistry, Ch. Eng. Chemical Engineering, Ce. Civil Engineering, Dh. Dairy Husbandry, Es. Economics, Ed. Education, Ee. Electrical Engineering, Eh. English, Fy. Forestry, Fr. French, Gm. German, Hy. History, He. Home Economics, Ht Horticulture, Lt. Latin, Ms. Mathematics, Me. Mechanical Engineering, Ped. Pedagogy, Ph. Poultry Husbandry, Pl. Philosophy, Pp. Plant Pathology, Ps. Physics, Sp. Spanish and Italian.

### GRADUATE STUDENTS

Arnold, Frances Elizabeth Stanislaus, <i>Orono</i> B.A., Sp. Maine, 1910	11 Pond Street
Bailey, Marcia Edgerton, B.A., Eh. <i>Orono</i> Oberlin, 1915	39 Mill Street
Beale, Frank Swan, B.S., Ms. <i>Eastport</i> Maine, 1921	33 Peters Street
Bless, Aaron, B.S., M.S., Ps. <i>Orono</i> Temple, 1918, Maine, 1921	113 Mill Street
Bragg, Marion Katharyn, B.A., Eh. <i>Bangor</i> Maine, 1921	32 College Road
Brown, Edward Choate, A.B., Ms. <i>Orono</i> Harvard, 1918	39 Forest Avenue
Chasman, Dorothy Kohn, B.S., Eh. <i>Orono</i> College of Industrial Arts, 1920	12 Pond Street
Crombie, John Newell, B.Chem., Ch. <i>Orono</i> Pittsburgh, 1916	34 Middle Street
Dawson, Leo Henry, A.B., A.M., Ps. <i>Orono</i> Clark, 1912, 1914	210 Main Street
Dorsey, Llewellyn Morse, B.S., An. <i>Orono</i> Maine, 1916	42 Forest Avenue
Evans, Weston Sumner, B.S., Ce. <i>Orono</i> Maine, 1918	180 Main Street
Flewelling, Howard Lloyd, B.A. <i>Needham, Mass.</i> Dartmouth, 1921	Cor. Juniper & Myrtle Sts.
Gardner, Leigh Philbrook, B.S., An. <i>Orono</i> Maine, 1918	46 College Road
Gooch, Marjorie Eunice, B.S., Bl. <i>Orono</i> Maine, 1919	162 College Road

Gould, Sherman Jewett, B.S., Ps. Bates, 1916	<i>Orono</i>	11 Main Street
Helmick, Benjamin Coe, B.S., M.S., Bl. Iowa State, 1914, Cornell, 1915	<i>Orono</i>	22 Penobscot Street
Howell, Charles Manly, A.B., Ch. Swarthmore, 1919	<i>Millerville, N. J.</i>	8 Middle Street
Kellogg, Thelma Louise, B.A., Eh. Maine, 1918	<i>Orono</i>	University Inn
King, Hon, B.S., Ch. Peking, 1920	<i>Ningpo, China</i>	404 Oak Hall
Lucas, Warren Stanhope, B.A., Ms. Maine, 1914	<i>Orono</i>	279 Main Street
Marshall, Leon Otis, B.S., Bl. Maine, 1921	<i>Orono</i>	Campus
Pearsall, Platt Ashley, B.S., Ch. Va. Poly. Inst., 1915	<i>Orono</i>	University Inn
Peterson, Bernese Loretta, A.B., A.M., Sp. Kansas, 1909, 1914	<i>Orono</i>	104 North Main Street
Reynolds, William Eugene, B.S., Bl. Maine, 1917	<i>Orono</i>	Δ T Δ House
Rosenthal, Samuel Charles, B.S., Ch. Maine, 1920	<i>Portland</i>	Φ E II House
Seeley, George Mervil, A.B., Ch. Bates, 1913	<i>Orono</i>	67 Main Street
Strausbaugh, John Anthony, B.A., Sp. Dickinson, 1919	<i>Orono</i>	University Inn
Swift, Harold Clayton, B. S., An. Maine, 1918	<i>Orono</i>	Σ X House
Tibbetts, Louis Elmore, B.S., Ed. Maine, 1919	<i>West Kennebunk</i>	45 Mill Street
Wiggin, Walter Wentworth, B.S., Bl. New Hampshire, 1921	<i>Orono</i>	46 College Road

## SENIORS

Alward, Harry Allen, Me.	<i>Bangor</i>	Α T Ω House
Anderson, Edwin Dewey, Ch. Eng.	<i>Camden</i>	Α T Ω House
Armstrong, Rhandena Ayer,, He.	<i>Rockland</i>	Balentine Hall
Atkinson, Horace Barker, Ce.	<i>Morrill</i>	36 Grove Street
Austin, Chester Jordan, Ms.	<i>Greene</i>	Σ Φ Σ House
Baker, Anne Kathleen, Hy.	<i>Orono</i>	29 Pierce Street
Barnard, John Hopkins, Ce.	<i>Gardiner</i>	Φ Γ Δ House
Barton, Lawrence Price, Es.	<i>Waterville</i>	Σ N House



Bayard, Clayton Crowell, Es.	<i>Orono</i>	76 Main Street
Bayley, Wilfred Donnell, Me.	<i>Wells</i>	Φ K Σ House
Bean, Achsa Mabel, Bl.	<i>Detroit</i>	Balentine Hall
Berry, Perley Lee, Fy.	<i>Rumford</i>	410 H. H. Hall
Bishop, Jacob Wetmore, Ce.	<i>Richmond</i>	405 H. H. Hall
Black, Joseph Kenneth, Ce.	<i>Vinalhaven</i>	Α T Ω House
Blake, Foster Batchelder, Ee.	<i>Sedgwick</i>	Σ Φ Σ House
Boothby, Clinton Robert, Ee.	<i>Livermore Falls</i>	Σ Φ Σ House
Bowker, Arthur Moses, Me.	<i>Bath</i>	Σ Α Ε House
Boyd, Parry Eustis, Es.	<i>Bangor</i>	Φ Η K House
Brawn, Herbert Andrew, Ch. Eng.	<i>Bath</i>	301 H. H. Hall
Brewer, Edgar Sterling, Me.	<i>Portland</i>	Φ Γ Δ House
Bunker, Mary Carolyn, Bl.	<i>Bangor</i>	Mt. Vernon House
Carey, Henry Thomas, Me.	<i>Portland</i>	Α T Ω House
Carlin, James Edward, Ch.	<i>Bangor</i>	Α T Ω House
Cary, Lester King, Es.	<i>Fort Fairfield</i>	Φ Γ Δ House
Chamberlain, Lucy Elizabeth, Fr.	<i>Houlton</i>	Balentine Hall
Chapman, Franklin Kenneth, Me.	<i>Old Town</i>	Δ T Δ House
Chase, Martha Durgin, He.	<i>Sebec Station</i>	Practise House
Clough, Raymon Whitney, Me.	<i>Portland</i>	Φ Η K House
Cohen, Robert, Eh.	<i>Orono</i>	Φ Ε Π House
Collins, Ida Merrill, Sp.	<i>Caribou</i>	Balentine Hall
Connon, William Dewey, Ee.	<i>Philadelphia, Pa.</i>	Φ Η K House
Connor, Rachel, He.	<i>Bangor</i>	Practise House
Coombs, Ruth Milton, He.	<i>Bangor</i>	Practise House
Costello, Joseph Coleman, Ch.	<i>Portland</i>	Α T Ω House
Coughlin, Mary Anna, Eh.	<i>Rockland</i>	Balentine Hall
Craig, Ivan Lester, Ce.	<i>Caribou</i>	Θ X House
Cross, Donald Harvey, Ms.	<i>Guilford</i>	Φ Γ Δ House
Curran, Frances Elizabeth, He.	<i>Bangor</i>	Practise House
Cutler, Fannie Rebecca, Fr.	<i>Old Town</i>	Old Town
Daniels, Donald Howard,	<i>Portland</i>	Φ Η K House
Davee, Lawrence Weston, Ee.	<i>Orono</i>	46 College Road
Dearborn, Errol Leonard, Ped.	<i>Corinna</i>	Campus
DeBeck, Leona Louise, Sp.	<i>Franklin</i>	Balentine Hall
DeCourcy, Paul, Ch.	<i>Bucksport</i>	R.F.D. #8, Bangor
Demerritt, Dwight Burgess, Fy.	<i>Sangerville</i>	Δ X Α House
Dennison, Harlan Stuart, Ee.	<i>South Paris</i>	205 H. H. Hall
Derby, Helena Mason, Hy.	<i>Bangor</i>	366 French Street
Dolliff, Ardis Eleta, Eh.	<i>Jackson</i>	Balentine Hall
Dow, Robert Wilbur, Fy.	<i>Biddeford</i>	Σ N House
Downes, Helen Lucena, Fr.	<i>Winterport</i>	Balentine Hall
Dufour, Joseph Paul, Ce.	<i>Madawaska</i>	Α T Ω House

Dunn, Gerald Perry, Ee.	Bridgton	Old Town
Dunn, Lillian Ring, Fr.	Orono	51 Bennoch Street
Duran, Beulah Lillian, Sp.	East Corinth	Balentine Hall
Durham, Charles Albert, Ce.	Monroe	B Θ Π House
Eastman, Charles Leslie, Ag.	Corinna	Campus
Fenderson, Henry Charles, Ch. Eng.	Saco	Σ A E House
Ferguson, George Haines, Jr., Ce.	Millinocket	B Θ Π House
Field, William Nathaniel, Ce.	Old Town	Old Town
Fifield, Herbert Walker, Es.	Vinalhaven	Σ A E House
Folsom, Rodney Gerry, Ce.	Springvale	Λ X A House
Gantnier, Jerome Benedict, An.	Benedicta	Campus
Gillespie, Ina Evelyn, Sp.	Meddybemps	Balentine Hall
Gilpatrick, Julia Thompson, Sp.	Northeast Harbor	Balentine Hall
Ginsberg, Simon, Me.	Bangor	Φ E Π House
Glover, Stanton, Ch. Eng.	Rockland	Σ X House
Goldberg, Irving Albert, Es.	Hartford, Conn.	Φ E Π House
Goodrich, Muriel Frances, Eh.	Orono	College Road
Gould, Clarence Bradford, Ce.	Bowdoinham	Σ Φ Σ House
Gould, Gladys Marie, He.	Milo	Balentine Hall
Graffam, Reynold Warren, Es.	Phillips	Σ N House
Gregory, Augustus Philip, Ch.	Fairfield	Σ N House
Griffin, Stephen Augustus, Es.	Peak Island	Φ H K House
Hall, Harold Gilmore, Ce.	Bath	Φ H K House
Ham, Philip Warren, Ch. Eng.	Foxcroft	29 Bennoch Street
Hanson, Stanley Freeland, Es.	Portland	B Θ Π House
Harkness, Vinton Orris, Me.	Bangor	Σ A E House
Hatch, Lynwood Scott, Ch. Eng.	Old Town	Old Town
Hathorne, Helen Louise, Hy.	Orono	R.F.D. #7, Bangor
Hawkes, Wyman Eveleth, An.	South Windham	Σ X House
Healey, Melvin Edward, Ce.	Gloucester, Mass.	Δ T Δ House
Hegarty, Richard Paul, Es.	Portland	Δ T Δ House
Herrick, Winslow Kent, Es.	South Brewer	Φ Γ Δ House
Hersom, Arthur Syphers, Es.	Blaine	K Σ House
Hescock, Milton Arthur, Ch. Eng.	Monson	Φ K Σ House
Hill, Henry Francis, Ce.	Augusta	Θ X House
Hill, Pauline Marguerite, Sp.	Old Town	Old Town
Hobart, Joel Elwin, Me.	Skowhegan	105 Oak Hall
Huckins, Leroy Sargent, Fy.	Lubec	206 H. H. Hall
Hughes, Joseph Francis, Ce.	Bangor	62 Second Street
Huston, Cecil Bachelder, Ee.	Patten	Δ T Δ House
Hutchins, Leslie Waldo, Ch. Eng.	Cape Neddick	Δ T Δ House

Jackson, Harry Laton, Ee.	<i>Bath</i>	Φ Γ Δ House
Johnson, Albert Edwin, Ce.	<i>New Britain, Conn.</i>	Φ Η Κ House
Johnson, Pearl Ernest, Ae.	<i>New Gloucester</i>	Σ Ν House
Johnson, Stanley Jordan, Ch. Eng.	<i>Brewer</i>	311 H. H. Hall
Jones, Alta Frances, Ped.	<i>Portland</i>	Balentine Hall
Jones, Cecil Roland, Ce.	<i>Waterville</i>	Σ Α Ε House
Jordan, Fred Thompson, Es.	<i>Farmington</i>	Σ Α Ε House
Judkins, Eshburn Oscar, Me.	<i>Upton</i>	108 H. H. Hall
Kelley, Robert Emmett, Ce.	<i>Willimantic, Conn.</i>	Δ Τ Δ House
Kennison, Ralph Gregory, Ee.	<i>Madison</i>	Φ Η Κ House
Lancey, Ardis Elizabeth, He.	<i>Hartland</i>	Practise House
Laughlin, Robert William, Me.	<i>Portland</i>	Θ Χ House
Lester, Orlando Atwood, An.	<i>Bridgton</i>	R.F.D. #7, Bangor
Libby, Bernard Augustus, Es.	<i>Limerick</i>	19 Park Street
Littlefield, Robert Lincoln, Dh.	<i>Wells</i>	303 H. H. Hall
McGraw, Earl Cranston, Ms.	<i>South Orrington</i>	202 H. H. Hall
McLean, Mary Almeda, Eh.	<i>Augusta</i>	Balentine Hall
Marcoux, Eli Albert, Ch. Eng.	<i>Berlin, N. H.</i>	205 H. H. Hall
Marston, Frederick Fairbrother, Ee.	<i>Portland</i>	Φ Γ Δ House
Mason, Alice Eliza, Lt.	<i>Mt. Desert</i>	32 Mill Street
Merrill, Doris Pauline, Eh.	<i>Bluehill</i>	Balentine Hall
Morse, Frank Leander Staples, Sp.	<i>Rockland</i>	24 Oak Street
Mulvaney, Arthur Danforth, Ce.	<i>Bangor</i>	Δ Τ Ω House
Murphy, Thomas Harold, Es.	<i>Guilford</i>	Φ Γ Δ House
Murray, Thomas Arthur, An.	<i>Hampden Highlands</i>	Φ Γ Δ House
Nadeau, Eugene Joseph, Ch. Eng.	<i>Presque Isle</i>	North Main Street
Nason, Estelle, He.	<i>Hampden Highlands</i>	Balentine Hall
Nason, Frances Sarah, He.	<i>Hampden Highlands</i>	Balentine Hall
Needham, John Hayes, Es.	<i>Old Town</i>	Old Town
Nevens, Cecilia Mary, Sp.	<i>Old Town</i>	Old Town
Nickerson, Osgood Alden, Fy.	<i>Bangor</i>	Φ Γ Δ House
Norell, Minnie Elvera, He.	<i>Caribou</i>	Practise House
Noyes, Hiram Otis, Es.	<i>Bryant Pond</i>	9 Peters Street
Noyes, Lauriston Franklin, Dh.	<i>East Wilton</i>	108 H. H. Hall
Oakes, Karl Rufus, Es.	<i>Rangeley</i>	Σ Ν House
O'Brien, Gertrude Mary, Eh.	<i>Medford, Mass.</i>	Balentine Hall
O'Donnell, James Francis, Me.	<i>Northampton, Mass.</i>	308 H. H. Hall

Packard, Ethel Frederica, He.  
 Packard, Irene Mae, He.  
 Patterson, Harry Alfred, Eh.  
 Perkins, Hope, He.  
 Patterson, Parker William, Ce.  
 Perkins, Stanley Wilbur, Ee.  
 Perro, Walter Leo, Ch. Eng.  
 Perry, Oscar Leland, Es.  
 Peterson, Ida Miller, Ped.  
 Pinkham, Seth Henry, Es.  
 Pitcher, Albert Elliot, Me.  
 Porter, Lawrence DeLeon, Hy.  
 Pray, Wilbur Franklin, Ce.  
 Priest, Conan Althado, Ee.  
 Pulsifer, Helen Lucia, He.

Rammer, Hyman Louis, Ch. Eng.  
 Ray, Homer Franklin, Ch. Eng.  
 Raymond, LaForest Francis, Ce.  
 Reed, Donald Winslow, An.  
 Reed, Grace Mildred, Ed.  
 Reynolds, Silas Sprague, Ee.  
 Rhoda, Marion Berenice, Lt.  
 Rich, Louis, Me.  
 Ring, Ernest Harvey, Es.  
 Robinson, Lloyd Herbert, Es.  
 Rock, Warren Stetson, Es.  
 Ross, Forrest John, Ms.  
 Rusk, Ian MacNiven, Ce.

Sargent, Carl Aaron, Me.  
 Sargent, Catharine Clapp, Ms.  
 Sawyer, Donald Frank, Es.  
 Scammon, Albert Fremont, An.  
 Severance, George Austin, Ce.  
 Shean, Perry Rufus, Ee.  
 Shepherd, Ruth Burleigh, Sp.  
 Silverman, Max, Ch. Eng.  
 Small, Mabel Angeline, Ped.  
 Smith, Bernice, Es.  
 Smith, Everett Lufkin, Ee.  
 Smith, John Raymond, Ch. Eng.  
 Smith, Pauline Chambers, Eh.  
 Stevens, Carl Thompson, Ch.

Camden Mt. Vernon House  
 Carmel Practise House  
 Pelham, N. Y. Σ X House  
 Augusta Practise House  
 Winslow 301 H. H. Hall  
 Cape Porpoise 304 H. H. Hall  
 Old Town Φ Γ Δ House  
 Rockland K Σ House  
 Columbia Falls Balentine Hall  
 Cape Porpoise Θ X House  
 Bangor 127 Thatcher Street  
 Orono 42 Oak Street  
 Calais Δ T Δ House  
 Ellsworth Σ Φ Σ House  
 Auburn Balentine Hall

Portland Φ E Π House  
 St. Albans 29 Bennoch Street  
 North Haven A T Ω House  
 Portland 105 Oak Hall  
 Bangor Balentine Hall  
 Monmouth K Σ House  
 Houlton Balentine Hall  
 Portland Φ E Π House  
 Orono 3 Summer Street  
 Island Falls Σ Φ Σ House  
 Swampscott, Mass. Σ A E House  
 Columbia Falls K Σ House  
 West Townsend, Mass.  
 A X A House

Westminster, Mass. A T Ω House  
 Sargentville Mt. Vernon House  
 Milbridge A T Ω House  
 Phillips 33 Bennoch Street  
 Old Town 301 H. H. Hall  
 Patten 202 H. H. Hall  
 Dexter Balentine Hall  
 Portland Φ E Π House  
 Milbridge Balentine Hall  
 Bangor Balentine Hall  
 East Orrington Φ Γ Δ House  
 Houlton 306 H. H. Hall  
 Houlton Balentine Hall  
 Buxton Σ A E House

Stowe, Frances Dillingham, Eh.	<i>Old Town</i>	<i>Old Town</i>
Strout, Andrew Everett, Me.	<i>Portland</i>	Φ H K House
Sturtevant, Norman Gardiner, Es.	<i>Livermore Falls</i>	Σ N House
Sullivan, Paul Damian, Ee.	<i>Biddeford</i>	36 Grove Street
Tabbutt, David Wass, Fy.	<i>Columbia</i>	206 H. H. Hall
Tarbox, Errol Eugene, Fy.	<i>Sanford</i>	Σ A E House
Thompson, Vera June, Ped.	<i>Houlton</i>	Mt. Vernon House
Thorpe, Mary Ellen, Ms.	<i>Presque Isle</i>	Balentine Hall
Tibbetts, Gardner Berry, An.	<i>Freedom</i>	K Σ House
Tingley, Frederick Joseph, An.	<i>Millinocket</i>	Σ Φ Σ House
Torsleff, Herbert St. John, Dh.	<i>Bangor</i>	K Σ House
Trefethen, Dorothy, He.	<i>Wilton</i>	Balentine Hall
Turner, Henry Paige, Ee.	<i>Casco</i>	Φ K Σ House
Tyler, Arnold Wesley, Dh.	<i>Augusta</i>	Φ K Σ House
Varney, Lawrence Brooks, Me.	<i>Eastport</i>	Θ X House
Walker, Carlton Asa, An.	<i>Bridgton</i>	K Σ House
Watson, Myron Edmund, Fy.	<i>Sanford</i>	A T Ω House
Webber, Ella Cynthia, Ped.	<i>Mapleton</i>	36 College Road
Webster, Henry Gilman, Dh.	<i>Farmington</i>	Φ K Σ House
White, Philip Rodney, Es.	<i>Sebago</i>	403 H. H. Hall
Wilkins, Elwood Kempton, Me.	<i>Caribou</i>	Φ H K House
Williams, Hugh Montgomery, Me.	<i>Guilford</i>	Φ Γ Δ House
Wonson, Philip Reed, Es.	<i>Gloucester, Mass.</i>	Σ A E House
Wood, Charles Wesley, An.	<i>Belfast</i>	Campus
Woodman, Charles Lorenzo, Fy.	<i>Plymouth, N. H.</i>	A T Ω House
Young, Bernice, Burrows, Lt.	<i>Portland</i>	27 Linden Street
Young, Newman Harold, Es.	<i>Auburn</i>	K Σ House

## JUNIORS

Ackley, Adrian Lowell, Ch. Eng.	<i>Peak Island</i>	Φ H K House
Aikins, Nelson Brown, Ee.	<i>South Windham</i>	404 H. H. Hall
Alexander, Donald Ford, Ee.	<i>Bangor</i>	Φ Γ Δ House
Anderson, Clifford Wendell, Ag.	<i>New Sweden</i>	401 H. H. Hall
Anderson, Paul Washburn, Me.	<i>Gloucester, Mass.</i>	Φ K Σ House
Archer, Ceylon Richard, Ee.	<i>Bangor</i>	Φ Γ Δ House
Averill, Virginia, Sp.	<i>Old Town</i>	Old Town
Babson, John Low, Ht.	<i>Gloucester, Mass.</i>	Grove Street
Bannister, Frank Cecil, Ee.	<i>Cornish</i>	Φ H K House
Bartlett, Annie Louise, Hy.	<i>Ashland</i>	Balentine Hall



Bates, Gerald Maynard, Ed.	Portland	Φ Γ Δ House
Bean, Myrtie Ann, He.	Vienna	Practise House
Beckett, Clarence Bertram, Es.	Calais	Σ X House
Berry, Charles Leslie, Ch. Eng.	Portland	180 Main Street
Bisson, Adolph Lawrence, Fy.	Skowhegan	K Σ House
Bissonette, Helena Marie, Fr.	Winthrop	Balentine Hall
Blaisdell, Carl Elmore, Bl.	North Sullivan	83 Park Street
Blanchard, George Vinton, Es.	Farmington	409 H. H. Hall
Blanchard, Vernon Earle, Fy.	Leominster, Mass.	49 Broadway
Bouchard, Frederick James, Ch.	Millinocket	Θ X House
Budge, Paul Leroy, Bl.	Springfield	54 Pine Street
Burdick, Harold Aiken, Ee.	Forest Hills, N. Y.	407 H. H. Hall
Cahill, Harold Daniel, Ee.	Bangor	220 Third Street
Calderwood, Robert Charles, Hy.	Waldoboro	309 H. H. Hall
Cary, Catharine, Lt.	Houlton	Mt. Vernon House
Chesley, Horace Jefferson, Me.	Hampden Highlands	23 Park Street
Christophersen, Wilbur Reed, Fy.	Gloucester, Mass.	Φ Γ Δ House
Cleaves, Beatrice Nettie, Es.	Bar Harbor	Mt. Vernon House
Colbath, Virginia Lee, Es.	Mars Hill	Mt. Vernon House
Cole, Janet Bonney, He.	Machiasport	Balentine Hall
Condon, Henry Ralph, Me.	South Brooksville	23 Park Street
Cony, Roland Francis, Ed.	Augusta	305 H. H. Hall
Cooney, Ardelle Agnes, He.	Brownville Junction	Balentine Hall
Cooney, Harold James, Me.	Brownville Junction	Θ X House
Covell, Arthur Eugene, Me.	Hinckley	212 H. H. Hall
Cunningham, Everett Charles, Dh.	Patten	209 Oak Hall
Currier, Lorenzo Gates, Ce.	Wentworth, N. H.	402 H. H. Hall
Curtis, Louis Everett, Ee.	Freeport	Φ Γ Δ House
Curtis, Theodore Small, Dh.	Freeport	Φ Γ Δ House
Cutler, Alexander Braun, Ch. Eng.	Old Town	Old Town
Davis, Lyle Moody, Dh.	Newport	406 Oak Hall
Davis, Philip Dunning, Ce.	Saco	211 H. H. Hall
Dennison, Katherine Lambert, He .	Brewer	Balentine Hall
Desjardins, Louis Patrick, Me.	Lisbon Falls	304 Oak Hall
Dolliver, Franz Richard, Me.	Bangor	B Θ Π House
Doten, Henry Leroy, Ce.	Northfield	Σ Φ Σ House
Dow, Percy Melvin, Ag.	Mapleton	402 Oak Hall
Dow, William Reed, Ee.	Bangor	402 Oak Hall
Dunn, Gerald Cobb, Ht.	Auburn	B Θ Π House



Elias, Fred Joseph, Es.	Bangor	194 Hancock Street
Emery, Howard Saunders, Ped.	Bar Harbor	408 Oak Hall
Erschine, Maxwell McLean, Ch.	Easton	112 H. H. Hall
Field, Frances Muriel, He.	Auburn	Balentine Hall
Fogg, Raymond Gredley, Es.	Skowhegan	Σ Φ Σ House
Foss, William McKinley, Fy.	Bingham	Δ T Δ House
Fossett, Angela Bernice, Eh.	Portland	Balentine Hall
Fossett, Edward Carroll, Dh.	Bristol	Campus
Gallison, Samuel George, Es.	Bangor	105 Larkin Street
Garsoe, Julius Oscar, Ht.	Woodfords	Δ X Δ House
Gellerson, Nadine Marie, Sp.	Houlton	Mt. Vernon House
Goldsmith, Ersley Levi, An.	West Gardiner	112 H. H. Hall
Gonyer, Doris Marie, Fr.	Orono	45 Mill Street
Gould, Antoinette Walker, Es.	Bangor	Mt. Vernon House
Grant, Doris Mae, Ped.	Hall Quarry	46 Main Street
Gray, Philip Lewis, Bl.	Harborside	87 North Main Street
Greenlaw, Una Prudence, Sp.	Belfast	Mt. Vernon House
Gross, David, Sp.	Bangor	165 Essex Street
Hall, Clyde Newman, Dh.	West Farmington	Δ X Δ House
Hall, Mabel Geneva, Sp.	Caribou	Balentine Hall
Hall, Stanley Gilbert, Me.	Dexter	Σ Φ Σ House
Hamiton, Arabelle Gray, Eh.	Bangor	Mt. Vernon House
Hamlin, Helen Beatrice, He.	Gardiner	Balentine Hall
Hamm, Clifton Marshall, Ed.	Brooks	Δ X Δ House
Harding, Margaret Frances, Lt.	Brunswick	Balentine Hall
Harkness, Elizabeth Anna, Ms.	Veazie	R.F.D. #7, Bangor
Harriman, Stanley, Ch.	Gardiner	33 Bennoch Street
Harthorn, Pauline Dudley, He.	Milford	Balentine Hall
Hatch, Maurice Lester, An.	Old Town	304 H. H. Hall
Hathorne, Philip Randall, Ce.	Woolwich	College Road
Hay, Lloyd Graham, An.	Portland	Φ Γ Δ House
Hersey, Rowene Elizabeth, Es.	Bangor	Mt. Vernon House
Higgins, Leslie Verne, Ee.	Greene	408 H. H. Hall
Higgins, Milton Ermond, Ed.	Bar Harbor	Stillwater
Hinkley, Helena Elizabeth, Ped.	Milbridge	Balentine Hall
Hitchings, Elizabeth May, Hy.	Caribou	Balentine Hall
Hitchings, Eugene Freeman, Me.	Caribou	302 H. H. Hall
Hodgdon, Marie Ethelyn, Es.	Berlin, N. H.	Mt. Vernon House
Holden, Edward Wight, Dh.	Hebron	Φ K Σ House
Holmes, Melvin Jeffrey, Dh.	Ocean Grove, N. J.	Δ X Δ House
Holt, George Augustus, Me.	Beverly, Mass.	205 H. H. Hall
Hope, Eric Stiles, Me.	Newport	406 H. H. Hall

Horne, Jacob McLellan, Jr., Ee.	Portland	Φ Γ Δ House
Hoyt, David William, Es.	Easton	Σ Φ Σ House
Humphreys, Helen May, Eh.	Brownville Junction	Balentine Hall
Hunter, Doris Elizabeth, Hy.	Rockland	Balentine Hall
Ingersoll, Robert, Ag.	Gloucester, Mass.	Δ T Δ House
Johnson, Percy Leroy, Bl.	Bar Harbor	310 H. H. Hall
Johnson, Stuart Miles, Ee.	Brownville	212 H. H. Hall
Johnson, Vernon Leslie, Ee.	North Berwick	203 H. H. Hall
Jones, Clayton Francis, Fy.	Randolph, Vt.	301 H. H. Hall
Jordan, Horace Stedman, Ce.	Cambridge, Mass.	Stillwater
Jordan, William Henry, Me.	Cape Elizabeth	202 Oak Hall
Jordan, Wilson Rodell, Ch. Eng.	Waltham	402 H. H. Hall
Jowett, John Naylor, Ce.	Uxbridge, Mass.	Σ N House
Kaler, Stephen Scammon, Ce.	South Portland	Σ N House
Kearns, William Michael, Es.	Gardiner	B Θ Π House
Kincade, Rachel Louise, Eh.	Portland	Balentine Hall
Kingsbury, Elizabeth Edna, Eh.	Biddeford	Balentine Hall
Kittredge, Arthur Edmund, Me.	South Portland	211 H. H. Hall
Kneeland, Edwin Leroy, Ed.	Princeton	Φ H K House
Knights, Allen George, Es.	Albion	Δ T Ω House
Lappin, Chase Roger, Ee.	Bryant Pond	401 H. H. Hall
Larson, Albion Olaf, Me.	Brownville	212 H. H. Hall
Larson, Nealie William, Me.	Brownville	202 Oak Hall
Lawrence, Edward Stone, Ch. Eng.	Gardiner	Φ Γ Δ House
Lee, Ola Bella, Ped.	Stillwater	Stillwater
Leighton, Russell Smith, Ee.	Columbia	207 H. H. Hall
Lineken, Edgar Elwyn, Ch. Eng.	Thomaston	Φ K Σ House
Littlefield, Theodore, Me.	Brewer	Φ K Σ House
Lombard, Mildred Ena, Es.	Sebago Lake	Balentine Hall
Lord, Leonard, Ch. Eng.	Saco	Δ T Ω House
McCormick, John Edward, Es.	Pittston	Orono
McGlauffin, Evelyn, Ms.	Baring	Balentine Hall
McGouldrick, George Harris, Ht.	Portland	University Inn
McKay, John Angus, Ce.	Portland	Φ Γ Δ House
McKechnie, Dwight Landin, Ce.	Princeton	311 H. H. Hall
McKeeman, Clyde Alexander, Me.	Milltown	Φ H K House
McKenney, Leroy Nelson, Bl.	Orono	Δ T Ω House
McLeod, James Leslie, Ce.	Bangor	Σ N House
McNally, Cecil Hazen, Ce.	Dexter	Θ X House

McNamara, John Ernest, Es.	<i>Gardiner</i>	Θ X House
McPhee, Annie Marie, Bl.	<i>South Paris</i>	Balentine Hall
McRonal, Everett Howard, Ee.	<i>Portland</i>	211 H. H. Hall
Mahany, Luman Paul, Es.	<i>Easton</i>	Θ X House
Malenaucka, Witalus George, Me.	<i>Auburn</i>	Σ X House
Manchester, Margaret, Fr.	<i>Northeast Harbor</i>	
		Mt. Vernon House
Mansur, Everett Brown, Ce.	<i>Bangor</i>	Φ H K House
Mantor, Lois Churchill, Lt.	<i>Farmington</i>	Mt. Vernon House
March, Leland Samuel, Es.	<i>Old Town</i>	Σ N House
Matthews, Guy Orison, Me.	<i>Hampden Highlands</i>	
		301 Oak Hall
Maxim, Wilbur Chandler, Ee.	<i>Wayne</i>	302 Oak Hall
Merchant, Iva Angerona, Ht.	<i>Walnut Hill</i>	Mt. Vernon House
Merrill, Gladys Marion, He.	<i>Gardiner</i>	Balentine Hall
Merritt, Carleton Westwood, Fy.	<i>Portland</i>	Θ X House
Meserve, Wilbur Ernest, Ee.	<i>Gorham</i>	25 Myrtle Street
Miller, Thor, Bl.	<i>Portland</i>	Δ X A House
Morrison, Crane Allison, Ee.	<i>Bangor</i>	25 Grove Street
Mullen, Joseph Norman, Ee.	<i>Bangor</i>	Φ Γ Δ House
Murchie, Ruth George, He.	<i>Calais</i>	Balentine Hall
Nicoll, Berneice Ormiston, Eh.	<i>Brunswick</i>	Balentine Hall
Niles, Merle Clyde, Es.	<i>Rumford</i>	Δ X A House
Nissen, Rudolph Arnold, Ce.	<i>Portland</i>	Δ T Δ House
Norell, Oscar Elwin, Bl.	<i>Caribou</i>	Σ X House
Norton, John Leyden, Ch. Eng.	<i>Manchester, N. H.</i>	A T Ω House
O'Connor, Timothy Paul, Ce.	<i>Biddeford</i>	103 Oak Hall
Osborne, Sidney, Me.	<i>Orono</i>	A T Ω House
Patten, Bryant McLellan, Es.	<i>Portland</i>	Φ Γ Δ House
Peabody, Mabel Blakeslee, Eh.	<i>Orono</i>	115 Main Street
Pease, Ivan Ralph, Me.	<i>Wilton</i>	Φ H K House
Perkins, Mary Crowell, Eh.	<i>Portland</i>	Mt. Vernon House
Perry, Elsie Beryl, Hy.	<i>Hallowell</i>	Balentine Hall
Place, Francia May, He.	<i>Dover</i>	80 Forest Avenue
Plummer, Roland Sparrow, Ee.	<i>Harrington</i>	Φ Γ Δ House
Pomeroy, Lendal Winslow, Ch. Eng.	<i>Gloucester, Mass.</i>	303 H. H. Hall
Porter, Victor Arnold, Ch. Eng.	<i>Presque Isle</i>	112 H. H. Hall
Porter, Wesley Fletcher, Dh.	<i>Patten</i>	K Σ House
Prentiss, Milton Carpenter, Me.	<i>Greenville</i>	Φ K Σ House
Prescott, Ithel Ezekial, An.	<i>Sanford</i>	Δ X A House
Randlette, Howard Hamilton, Dh.	<i>Richmond</i>	K Σ House
Raymond, Horace Waterhouse, Me.	<i>North Jay</i>	Φ H K House

Reynolds, Clifford Sanford, Hy.  
 Ring, Elizabeth, Hy.  
 Rogers, Arthur Edmund, Ee.  
 Rogers, Eleanor Hathaway, Hy.

Rosenwald, Otto Harald, Ee.  
 Rowe, Cecil Allen, Ee.  
 Russell, Cora Frances, Hy.

Sanborn, John Albert, Me.  
 Sanborn, Martha Amanda, He.  
 Sawyer, Clayton Leonard, Hy.  
 Sawyer, Thelma Inga, Hy.  
 Sawyer, Wilbur Cranston, An.  
 Sayward, Warren Albert, Me.  
 Sewall, Rufus Shirley, Fy.  
 Seymour, John Lawrence, Ch. Eng.  
 Shatney, Thomas Henry, Ch.  
 Shaw, John Hayes, An.  
 Shaw, Sterling Eugene, Es.  
 Shepherd, Charles Joseph, Dh.  
 Shorey, Helen Elizabeth, Ms.  
 Simpson, William Andrew, Ed.

Small, Clinton Edgar, Dh.  
 Small, Frank Mark, Dh.  
 Smith, George Daniel, Es.  
 Snow, Pearl Marguerite, Ped.  
 Sparrow, Theron Alonzo, Me.  
 Spear, Ruth Helen, Es.  
 Spear, Willard Walker, Ht.  
 Stackpole, Ida Mae, Sp.  
 Stanchfield, Nina Bessie, Ms.  
 Staples, Gladys Louise, Sp.  
 St. Clair, Leo James, Ee.  
 Stevens, Philip Haskell, Ee.  
 Stevens, Ronald Cecil, Fy.

Stewart, Oscar Earle, Ch. Eng.  
 Stickney, Fernald Stanley, Me.  
 St. Pierre, Lionel Eugene, Ce.  
 Strout, Avis May, Hy.  
 Stuart, Ervin, Es.  
 Stuart, Jeanette Lelia, Ms.  
 Stuart, Richard Bryson, Ce.  
 Sullivan, Ferderick Joseph, Es.

Bingham 180 Main Street  
 Orono 3 Summer Street  
 Stillwater 25 Grove Street  
 Newburyport, Mass.

Balentine Hall  
 207 H. H. Hall  
 409 H. H. Hall  
 Balentine Hall

Norway B Θ Π House  
 Standish Balentine Hall  
 Orono 6 Crosby Street  
 Garland Balentine Hall  
 Westbrook Δ T Δ House  
 Alfred 307 Oak Hall  
 Wiscasset 310 Oak Hall  
 New York City 55 Park Street  
 Orono 7 Pleasant Street  
 Springvale Δ X A House  
 Caribou 7 Pleasant Street  
 Corinna Σ A E House  
 Foxcroft Balentine Hall  
 Marlboro, Mass. College Road  
 South Portland 25 Grove Street  
 Orono 27 Park Street  
 Northampton, Mass. Δ T Δ House  
 Exeter 80 North Main Street  
 Hampden Highlands Σ N House  
 Rockland Balentine Hall  
 South Portland Σ X House  
 Bridgewater Balentine Hall  
 Veazie R.F.D. #7, Bangor  
 Bangor Mt. Vernon House  
 Wellington A T Ω House  
 Auburn Δ X A House  
 Kingfield Φ K Σ House  
 Saco A T Ω House  
 Brownville Σ N House  
 Auburn 49 Broadway  
 Portland Balentine Hall  
 Weeks Mills B Θ Π House  
 Houlton Balentine Hall  
 Houlton Φ K Σ House  
 Bangor 69 Walter Street

Taylor, Charles Grandison, Me.	<i>Foxboro, Mass.</i>	Σ X House
Thomas, Daniel Ferris, Ch. Eng.	<i>Camden</i>	Φ K Σ House
Thomas, Edgar Weymouth, Ch. Eng.	<i>Portland</i>	180 Main Street
Thomas, Ralph Edwin, Ee.	<i>Camden</i>	Φ K Σ House
Tibbetts, Margaret Alice, Ped.	<i>Exeter</i>	38 Oak Street
Titcomb, Clarence Joseph, Dh.	<i>Farmington</i>	Δ X A House
Tourangeau, Theodore Joseph, Ce.	<i>Westbrook</i>	Σ A E House
Townsend, John Lawrence, Me.	<i>South Portland</i>	208 H. H. Hall
Trecartin, William Burdell, Ee.	<i>Lubec</i>	110 H. H. Hall
Tucker, Ruth Whitmore, Eh.	<i>Portland</i>	Balentine Hall
Turner, Constance Marion, He.	<i>Gardiner</i>	Balentine Hall
Twitchell, Doris Frances, Ch.	<i>Old Town</i>	Balentine Hall
Twitchell, Edythe Gertrude, Ed.	<i>Old Town</i>	Balentine Hall
Van Den Kerckhoven, Eugene Addison, Ee.	<i>Bethel</i>	104 H. H. Hall
Varney, Frances Josephine, Es.	<i>South Berwick</i>	Balentine Hall
Wallace, Velma Louisa, Bl.	<i>Sebago Lake</i>	Mt. Vernon House
Ware, Cecil Arthur, An.	<i>Hampden Highlands</i>	301 Oak Hall
Waterman, Harold Frederick, Ed.	<i>Portland</i>	Δ T Δ House
Weatherbee, Harriet, Ms.	<i>Lincoln</i>	Balentine Hall
Webb, Fred DeLancey, Es.	<i>Houlton</i>	Θ X House
Webb, George Hersey, Fy.	<i>Bartlett, N. H.</i>	B Θ II House
Webber, Verlie Armand, Ch. Eng.	<i>Kittery</i>	109 H. H. Hall
Webster, Frankie, He.	<i>Deer Isle</i>	Balentine Hall
Welch, Harold Emerson, Ee.	<i>Freeport</i>	201 Oak Hall
Wellington, William Herbert, Fy.	<i>East Dover</i>	Δ X A House
Wells, Vance Millard, Ch.	<i>Wilton</i>	Φ H K House
West, Frank Raymond, Ee.	<i>Old Town</i>	Old Town
Weymouth, Albert Edward, Fr.	<i>Old Town</i>	Old Town
Whitcomb, Morton Church, Ch. Eng.	<i>Ellsworth</i>	Σ X House
White, Lewis Henry, Ce.	<i>Wayne</i>	302 Oak Hall
Wilkins, Roland Lewis, An.	<i>Dryden</i>	Campus
Wiley, Marjorie D., Ms.	<i>Bar Harbor</i>	Mt. Vernon House
Williams, Roger, Dh.	<i>Guilford</i>	406 Oak Hall
Wilson, Arthur Edward, Es.	<i>Orono</i>	23 Bennoch Street
Wilson, Howard Edmund, Ee.	<i>Belfast</i>	9 Peters Street
Wilson, Walter Orlando, Dh.	<i>Leeds</i>	Σ A E House
Vinslow, Arthur Franklin, Ch.	<i>Freeport</i>	307 H. H. Hall
Vinslow, Eunice Hazel, Lt.	<i>Rockland</i>	Balentine Hall
Vinslow, John Clifford, Ee.	<i>Westbrook</i>	Δ X A House
Viswell, Sarah Chaloner, Ms.	<i>Machias</i>	Mt. Vernon House
Young, Harvard Gerone, Me.	<i>East Surry</i>	Φ H K House



## SOPHOMORES

Abbott, Elmer Bradley Benson, Ce.	<i>Hollis Center</i>	403 Oak Hall
Alquist, Bartlett Adams, Ch. Eng.	<i>Fitchburg, Mass.</i>	Δ T Δ House
Ames, James Wesley, Es.	<i>Walpole, Mass.</i>	Φ H K House
Ames, Leroy Ellsworth, Me.	<i>Vinalhaven</i>	74 North Main Street
Annett, James Gordon, Bl.	<i>South Berwick</i>	Θ X House
Arnold, Philip Elmer, Bl.	<i>Portland</i>	Θ X House
Asdourian, Horian David, Ch.	<i>Portland</i>	308 Oak Hall
Ayer, Hazen Hunter, Es.	<i>Union</i>	Φ K Σ House
Bailey, Irving Stanley, Ee.	<i>Waldoboro</i>	Φ Γ Δ House
Baker, Chester Addison, Ee.	<i>Gorham</i>	412 H. H. Hall
Baker, Gregory, Fy.	<i>Bingham</i>	Φ K Σ House
Beal, Carl Lewis, Ch. Eng.	<i>Phillips</i>	111 H. H. Hall
Beckett, Charles Louis, Ag.	<i>Calais</i>	201 Oak Hall
Beckett, Edith Louise, He.	<i>Calais</i>	Mt. Vernon House
Benisch, Walter Paul, Me.	<i>South Portland</i>	47 Mill Street
Bennett, Aileen Helen, Lt.	<i>New Gloucester</i>	Balentine Hall
Bennett, Ralph Richard, Ce.	<i>Lancaster, N. H.</i>	Θ X House
Berg, Eric Olaf, Me.	<i>Rangeley</i>	Σ N House
Bessey, Ruth Anna, Lt.	<i>Saco</i>	Balentine Hall
Bigelow, Elwood Bailey, Ee.	<i>Portland</i>	Δ T Δ House
Boynton, Henry Stanwood, Ch. Eng.	<i>Sullivan</i>	25 Oak Street
Bragdon, Leonard Jellison, Ce.	<i>Franklin</i>	403 H. H. Hall
Bragg, Herbert Edward, Ee.	<i>Bangor</i>	211 Oak Hall
Brasseur, Herbert Slaunwhite, Me.	<i>Bradford, Mass.</i>	Φ K Σ House
Brown, Frederick Coombs, Ee.	<i>Lincolnville</i>	407 H. H. Hall
Burke, Frank Valentine, Ch.	<i>Randolph</i>	Θ X House
Burns, Ralph Matthew, Es.	<i>Houlton</i>	Σ X House
Burr, Wilfred Chadbourne, Me.	<i>Mattawamkeag</i>	204 H. H. Hall
Butler, Leon Jordan, Bl.	<i>Portland</i>	Φ Γ Δ House
Caplan, Lewis, Ce.	<i>Portland</i>	3 Middle Street
Carlin, Thomas James, Ch. Eng.	<i>Bangor</i>	68 Pearl Street
Carter, Ray Horace, Ag.	<i>Washburn</i>	204 H. H. Hall
Carville, Ellsworth Maguire, Ee.	<i>North Leeds</i>	401 Oak Hall
Caulfield, John George Leslie, Ch.	<i>Bangor</i>	189 State Street
Chadwick, Lois Lillian, Lt.	<i>Machias</i>	Balentine Hall
Chalmers, James Amasa, Ch. Eng.	<i>Albion</i>	Φ H K House
Chalmers, Lindsay Billings, Es.	<i>Albion</i>	102 H. H. Hall
Chase, Harold Jasner, Me.	<i>Portland</i>	Σ A E House
Chase, Kenneth Webster, Ee.	<i>Cumberland Center</i>	Σ X House
Chesterton, Allan Bowdoin, Es.	<i>Portland</i>	111 H. H. Hall
Clapp, Harlan Luther, Ch.	<i>Bangor</i>	95 Sanford Street



Clark, Adelbert Bruce, Ag.	Millinocket	111 Oak Hall
Clark, Frank Howard, Ag.	Bridgton	403 H. H. Hall
Clemons, Shirley Gerard, Bl.	North Sullivan	109 H. H. Hall
Clifford, Stanley Burnham, Me.	North Edgecomb	205 Oak Hall
Cloudman, Arthur Mosher, Ag.	Saco	149 Main Street
Cloutier, Lorette Georgianna, Fr.	Waterville	Balentine Hall
Coffin, Clarence Martin, Me.	West Paris	310 Oak Hall
Cooper, George Hubert, Ch. Eng.	Presque Isle	409 H. H. Hall
Copeland, Mary Lillian, Ms.	Brewer	Balentine Hall
Crane, Carl Hudson, Ce.	Foxcroft	Σ N House
Croxford, Paul Marks, Es.	Brewer	B Θ Π House
Currier, Theodore Shirley, Hy.	Amesbury, Mass.	56 Park Street
Cutting, Edward Chapman, Es.	Warren	204 H. H. Hall
Cyphers, Kenneth Leigh, Ee.	Dexter	201 H. H. Hall
Daley, Anna Rose, Hy.	Bangor	Balentine Hall
Dempsey, Philip Francis, Es.	Houlton	Θ X House
Deuse, James Smith, Me.	Westbrook, Conn.	100 North Main Street
Doble, Alice Mae, Bl.	Milo	Balentine Hall
Dolliver, Morris Augustus, Ch.	Manset	27 Park Street
Donovan, Charles Bradford, Me.	North Andover, Mass.	303 Oak Hall
Donovan, John March Francis, Jr., Es.	Turners Falls, Mass.	Θ X House
Dow, Lowell Jordan, Ee.	Amesbury, Mass.	410 H. H. Hall
Driscoll, Merwyn Ruez, Ee.	Livermore Falls	Σ N House
Dunham, Earl Maynard, Ee.	Dixfield	Φ K Σ House
Durgin, Harold Lile, Ee.	Randolph	Θ X House
Dyke, Howard Hamlin, Ee.	Livermore Falls	411 H. H. Hall
Eastman, Arthur Fessenden, Ee.	Wollaston, Mass.	Φ Γ Δ House
Eastman, Tobias Clifford, Fy.	Fryeburg	Φ K Σ House
Edwards, Frank Blodgett, Fy.	Shelburne, N. H.	K Σ House
Farnham, Arthur Lionel, Ag.	Orland	309 H. H. Hall
Farnsworth, Nellie May, Eh.	Rockport	55 Bennoch Street
Fayle, Leslie Edwin, Bl.	Old Town	Old Town
Feldman, Ernest, Sp.	Chelsea, Mass.	304 Oak Hall
Fisher, Harry Sherwood, Ee.	Ridlonville	312 Oak Hall
Foote, John, Ee.	Sturbridge, Mass.	8 Middle Street
Foster, Frank Chandler, Fy.	Presque Isle	Φ H K House
Foster, Ralph Wyman, Me.	Newcastle	Φ H K House
Friend, Mary Hattie, Ms.	Skowhegan	Balentine Hall

Gay, Thomas Edward, Eh.  
 Gentile, Michael Charles, Es.  
 George, Albert Cedric, Es.  
 Gerrish, Harry Jacob, Bl.  
 Getchell, Philip Eugene, Ag.  
 Getchell, Ralph Augustus, Ee.  
 Gott, Albert Richard, Me.  
 Grant, Wallace Mitchell, Me.  
 Graves, Royal Sandford, Ee.  
 Green, Anna Eleanor, Fr.  
 Greenberg, Percy Joseph, Eh.  
 Greenleaf, John Adams, Ee.  
 Gregory, Max Robertson, Ce.  
 Griffin, Guy Eben, Ce.  
 Grover, Thelma Josephine, He.  
 Guppy, Ada Irene, Eh.

Hadlock, Edwin Harold, Ee.  
 Hagerthy, Lawrence Milton, Bl.  
 Hall, Rebecca Bell, Sp.  
 Ham, John Raymond, Me.  
 Ham, Robert Frank, Ee.  
 Handy, Francis Edward, Ee.  
 Hanson, William Park, Me.  
 Harmon William Edward, Ag.  
 Harriman, Philip Ainslee, Ed.  
 Harvey, Helen Hunt, He.  
 Haskins, William Deane, Ag.  
 Hatch, Theodore Frederick, Ce.  
 Hawes, Arthur Lafayette, Es.  
 Hawes, Frederick Albert, Es.  
 Hayes, James Louis, Ch. Eng.  
 Haywood, Harland Lyman, Me.  
 Henderson, Kenneth Alfred, Ag.

Hills, Frederick Gilbert, Fy.  
 Hilton, George Carroll, Ag.  
 Hilton, Walter Getchell, Me.  
 Hitchings, Barbara Gertrude, Sp.  
 Hodgdon, Fernald, Ag.  
 Holt, Hillis Wyman, Me.  
 Hoos, Benjamin, Ch. Eng.  
 Hope, Bruce Victor, Me.  
 Horsman, Louis Cecil, Ce.

Newcastle B Θ Π House  
 Rumford 407 Oak Hall  
 Fitchburg, Mass. Θ X House  
 Portland Φ E Π House  
 East Machias B Θ Π House  
 Portland Σ N House  
 Orland 309 H. H. Hall  
 Hall Quarry 54 Pine Street  
 Lisbon Falls 7 Park Street  
 Old Town Old Town  
 Brooklyn, N. Y. Φ E Π House  
 North Edgecomb 205 Oak Hall  
 Calais Δ X A House  
 Old Town 202 H. H. Hall  
 Norway Mt. Vernon House  
 Garland Balentine Hall

Portland 25 Myrtle Street  
 Sedgwick Σ Φ Σ House  
 East Machias Balentine Hall  
 Monmouth 102 H. H. Hall  
 Guilford Φ K Σ House  
 Augusta 412 H. H. Hall  
 Bangor 240 West Broadway  
 Caribou 302 H. H. Hall  
 North New Portland Σ N House  
 Fort Fairfield Mt. Vernon House  
 Saco 88 Main Street  
 Dark Harbor 202 H. H. Hall  
 Worcester, Mass. 10 Mill Street  
 Worcester, Mass. 10 Mill Street  
 Biddeford Δ T Ω House  
 Monson College Road  
 North New Portland  
 102 H. H. Hall  
 Bangor 204 H. H. Hall  
 Bridgton 403 H. H. Hall  
 Norridgewock 411 Oak Hall  
 Caribou Balentine Hall  
 Millinocket 111 Oak Hall  
 North Orrington 404 H. H. Hall  
 Old Town Old Town  
 Newport 406 H. H. Hall  
 Presque Isle Θ X House

Howe, Harold Walker, Me.	<i>Deer Isle</i>	Σ A E House
Hunt, Elizabeth Frances, Eh.	<i>Portland</i>	Balentine Hall
Huston, Robert Daniel, Ee.	<i>Portland</i>	303 H. H. Hall
Hutchins, Bently Staples, Fy.	<i>Bangor</i>	Σ N House
Hutchinson, Ralph Melville, Fy.	<i>Houlton</i>	Φ K Σ House
Irving, Iome Belle, Eh.	<i>Clinton</i>	Mt. Vernon House
Jackson, Theresa Mary, Eh.	<i>Waterville</i>	Balentine Hall
Jacobs, David, Bl.	<i>Lawrence, Mass.</i>	Φ E Π House
Jeffery, David Mitchell, Ee.	<i>Dorchester, Mass.</i>	7 Pleasant Street
Johnson, Melville Hunnewell, Ee.	<i>South Portland</i>	35 Park Sareet
Jones, Albert Eugene, Ee.	<i>Brighton, Mass.</i>	K Σ House
Judkins, Perry Wendell, Me.	<i>Upton</i>	108 H. H. Hall
Katz, Samuel Sawyer, Es.	<i>Hartford, Conn.</i>	Φ E Π House
Keene, Alice Mary, Hy.	<i>Camden</i>	Balentine Hall
Kelley, Harold Lee, Ee.	<i>Lubec</i>	110 H. H. Hall
Kennison, Conrad Earl, Es.	<i>Madison</i>	Φ H K House
Kerr, Alva Davis, Me.	<i>Oakland</i>	311 Oak Hall
Keyes, Barbara Philena, Eh.	<i>Rockland</i>	Balentine Hall
King, Ebenezer Baker, Ce.	<i>Peabody, Mass.</i>	Σ N House
King, Oral Glenwood, Ce.	<i>New Portland</i>	A T Ω House
Ladd, Harland Augustine, Ee.	<i>Dover-Foxcroft</i>	Δ T Δ House
Ladd, Vaughn Loring, Me.	<i>Dover-Foxcroft</i>	Σ N House
Levi, Frank Stanley, Ch. Eng.	<i>Rumford</i>	112 H. H. Hall
Libbey, Margaret Mary, Sp.	<i>Orono</i>	28 Pond Street
Lindahl, Frederick Morey, Me.	<i>West Springfield, Mass.</i>	College Road
Lockwood, John Elmer, Jr., Fy.	<i>Old Town</i>	Old Town
Lord, George Edgar, Ag.	<i>West Lebanon</i>	Δ X A House
Loring, Harold Clayton, Ee.	<i>Livermore Falls</i>	411 H. H. Hall
Lunge, Raymond Frank, Es.	<i>Kennebunk</i>	Σ N House
Luther, Justin Joseph, Me.	<i>Hadlyme, Conn.</i>	100 North Main Street
McCarn, Honor Burke, Lt.	<i>Biddeford</i>	Balentine Hall
McDonald, William Rogers, Jr., Ee.	<i>South Portland</i>	84 Park Street
McKechnie, Karl Harold, Fy.	<i>Fairfield</i>	Δ T Δ House
MacKenzie, Virgil Linwood, Me.	<i>Old Town</i>	Old Town
McNerney, John Cornelius, Bl.	<i>Plantsville, Conn.</i>	48 Pine Street

Mackay, Roger Daniel, Es.  
 Martin, John Stanley, Ch. Eng.  
 Mayo, Bernard Joseph, Es.  
 Meinecke, Carl Whitcomb, Ce.  
 Merrill, Julian Haskell, Jr., Fy.  
 Merrow, Ralph Clifford, Ag.  
 Meservey, Cora Alice, Eh.

Messer, Louise Elinor, Fr.  
 Monroe, Theodore William, Es.  
 Morrill, Paul Morris, Fy.  
 Mulligan, James Edward, Ee.  
 Munsey, Virdell Everard, Ch. Eng.  
 Myers, Ellen Oshea, Es.

Nelson, Mildred Lillian, Fr.  
 Nevers, Hubert Archie, Ag.  
 Newell, Harry Stanley, Bl.  
 Nichols, James Albert, Jr., Eh.  
 Nichols, Leslie Crosman, Es.  
 Noonan, Alice Beatrice, Lt.  
 Noyes, Charles Edwin, Ag.

Oak, Philip Tracy, Ch. Eng.  
 O'Connor, Michael Henry, Ee.  
 Osgood, Clayton Plummer, Ag.  
 Osgood, Earl Pike, Ag.  
 Osgood, Mary Elizabeth, He.

Patterson, William Wesley, Eh.  
 Perch, Paul, Me.  
 Perkins, Belford Ashton, Me.  
 Perkins, Henry Girard, Me.

Perkins, Wallace Winfield, Ee.  
 Peterson, Christine Celia, He.  
 Phillips, Clifton Simmons, Es.  
 Phillips, Neal Winslow, Ch. Eng.  
 Pike, Donald Harrington, Ee.  
 Plummer, Bernie Elliott, Jr., Dh.  
 Plummer, Lester Lacy, Ed.  
 Pretto, Lenora Sylvia, Fr.  
 Pride, Eva Sweetsir, Bl.  
 Prout, Edward Francis, Ee.

*Dorchester, Mass.*      Σ N House  
*Old Orchard*      410 H. H. Hall  
*Lewiston*      K Σ House  
*Bangor*      26 Jefferson Street  
*Orono*      117 Bennoch Street  
*Saco*      A T Ω House  
*Greenville Junction*

                                 Balentine Hall  
*Old Town*      Old Town  
*Milo*      Σ A E House  
*Biddeford*      210 H. H. Hall  
*Damariscotta Mills*      211 Oak Hall  
*Newcastle*      47 Mill Street  
*Orono*      18 Forest Avenue

*Brewer*      Brewer  
*Patten*      K Σ House  
*Old Town*      Θ X House  
*Woodfords*      210 H. H. Hall  
*Lisbon Falls*      311 Oak Hall  
*Calais*      Balentine Hall  
*Norway*      312 H. H. Hall

*Bangor*      B Θ Π House  
*Biddeford*      109 Oak Hall  
*Fryeburg*      209 H. H. Hall  
*Fryeburg*      209 H. H. Hall  
*Milford*      Milford

*Corinna*      212 Oak Hall  
*Leominster, Mass.*      305 Oak Hall  
*North Brooksville*      Φ H K House  
*West Brooksville*

                                 87 North Main Street  
*Bluehill*      Σ Φ Σ House  
*Portland*      Balentine Hall  
*Kingfield*      Φ K Σ House  
*Portland*      Σ X House  
*Mansfield, Mass.*      K Σ House  
*Weld*      Campus  
*Harrington*      Φ Γ Δ House  
*Orono*      Pine & Elm Streets  
*Woodfords*      Balentine Hall  
*Bangor*      209 H. H. Hall

Ramsdell, Dora Atherton, Fr.	<i>Lubec</i>	Balentine Hall
Read, Marion Izora, Bl.	<i>Old Town</i>	Old Town
Reed, Leona Kathleen, Eh.	<i>Owl's Head</i>	Balentine Hall
Reiche, Howard Charles, Bl.	<i>Portland</i>	B Θ Π House
Rich, Abraham Jacob, Es.	<i>Bangor</i>	165 Essex Street
Riecker, William Christie, Ch. Eng.	<i>Portland</i>	29 Bennoch Street
Ring, Carl Edwin, Me.	<i>Bangor</i>	Α Τ Ω House
Ring, Chester Allen, Ce.	<i>Orono</i>	Α Τ Ω House
Roberts, Philip Carroll, Ce.	<i>Woodfords</i>	Σ Χ House
Robinson, Gerald Norman, Es.	<i>Bangor</i>	473 Union Street
Robinson, Vaughn Belyea, Bl.	<i>Robinson</i>	Σ Φ Σ House
Robinson, Verner Floyd, Es.	<i>West Pembroke</i>	Κ Σ House
Rollins, Philip Elroy, Ch. Eng.	<i>Vassalboro</i>	Σ Φ Σ House
Rosenberg, Samuel Louis, Es.	<i>Portland</i>	Φ Ε Π House
Ross, Bryan Elmo, Es.	<i>Charleston</i>	Σ Φ Σ House
Ross, George Harold, Es.	<i>Robbinston</i>	25 Mill Street
Rowe, Marjorie Harriette, He.	<i>Brewer</i>	Brewer
Sargent, Philip Arthur, Fy.	<i>Sargentville</i>	403 Oak Hall
Saunders, George Eldon, Ee.	<i>Townsend, Mass.</i>	Α Χ Α House
Savage, Ruth Herrick, Fr.	<i>Bangor</i>	Balentine Hall
Savage, Vera May, Ms.	<i>Bangor</i>	Balentine Hall
Schultz, Stanley Merrill, Ee.	<i>Lisbon Falls</i>	100 North Main Street
Schwartz, Nathan, Bl.	<i>Portland</i>	101 Oak Hall
Silverman, Leo Manuel, Me.	<i>Portland</i>	107 Oak Hall
Sinnett, Chester Maxim, Ee.	<i>Bailey Island</i>	Σ Φ Σ House
Skolfield, George Lincoln, Ee.	<i>Weld</i>	312 H. H. Hall
Skolfield, John Theodore, Me.	<i>Brunswick</i>	Φ Κ Σ House
Small, Henry Dyer, Me.	<i>Charleston</i>	Σ Χ House
Small, John Alvin, Ag.	<i>Newport</i>	203 Oak Hall
Small, John Gilman, Es.	<i>Orono</i>	24 Mill Street
Smith, Fred Emery, Ch. Eng.	<i>Westbrook</i>	101 H. H. Hall
Smith, Robert Leverett, Es.	<i>Gloucester, Mass.</i>	Δ Τ Δ House
Sparks, Regina Frances, Fr.	<i>Old Town</i>	Old Town
Spearin, Clarence Milton, Ag.	<i>Clinton</i>	210 H. H. Hall
Spearin, Dorothy Esther, He.	<i>Fort Fairfield</i>	Balentine Hall
Springer, Gladys Lulu, Fr.	<i>Danforth</i>	Balentine Hall
Stackpole, George Kenneth, Me.	<i>Sanford</i>	B Θ Π House
Stanley, Alice Gertrude, Sp.	<i>Bangor</i>	Mt. Vernon House
Stearns, Drew Thompson, Fy.	<i>Hebron</i>	Σ Ν House
Stevens, Carl William, Ag.	<i>Millinocket</i>	Σ Α Ε House
Stevens, Hollice Linwood, Ee.	<i>Harrington</i>	103 Oak Hall
Stevens, John Lewis, Ee.	<i>Woodfords</i>	Σ Α Ε House



Steward, Colby Weston, Me.

Strong, Willard Emmons, Jr., Ag.  
 Sullivan, Walter Gregory, Ee.  
 Sutthery, Arthur Robertson, Bl.  
 Sweatt, Chester Volney, Fy.  
 Sweet, Stanton LaForest, Me.

Tarr, Thomas Hunt, Es.  
 Taylor, Philip Hector, Es.  
 Thibodeau, Raymond Martin, Ee.  
 Thompson, James Clark, Ch. Eng.  
 Thompson, Josiah Noyes, Ag.  
 Thompson, Percy Earle, Ee.  
 Tibbetts, Sylvia Elizabeth, Ch.  
 Tolman, Kenneth Hayden, Ch.  
 Trask, Harvey Richard, Me.

Vaitses, Theodore Jack, Es.

Wallace, Albion King, Ee.  
 Ward, Franklin Dolliver, Ee.  
 Waterhouse, Ruth, He.  
 Watson, Charles Morrisette, Me.  
 Wentworth, Helen Bernice, Eh.  
 Wescott, Donald Henry, Fy.  
 Westcott, Guy Sterling, Ee.  
 Weymouth, Irving Crosby, Es.  
 Wheaton, Rodger Gainey, Fy.  
 Wheeler, Grant Julius, Ag.  
 Whitcomb, Paul Langley, Es.  
 White, John MacGregor, Bl.  
 White, Webster William, Ag.  
 Whiteside, Elizabeth Mildred, Sp.  
 Whitten, Charles Albert, Ce.  
 Whittier, Stanley Spencer, Ag.  
 Wilkins, Alden Warren, Ce.  
 Willey, Arthur Osgood, Me.  
 Wiswell, Harry Steves, Fy.  
 Wolf, Margaret Hilda, Eh.  
 Wood, Herbert James, Ed.  
 Woods, Phillip Edgar, Ce.  
 Wray, Ada Drusilla, Fr.

York, George Oscar, Fy.

Zysman, Sol, Hy.

St. Johnsbury, Vt.

46 College Road

Augusta Σ X House  
 Orono 212 Main Street  
 Caribou 302 H. H. Hall  
 Andover 101 H. H. Hall  
 Mexico 312 Oak Hall

Gloucester, Mass. Δ T Δ House  
 Worcester, Mass. Φ Γ Δ House  
 Old Town Old Town  
 Ontario, Canada 310 H. H. Hall  
 Limestone Σ Φ Σ House  
 Camden Σ A E House  
 Vanceboro Balentine Hall  
 South Portland Δ T Δ House  
 Randolph B Θ Π House

Melrose, Mass. 47 Mill Street

Milbridge A T Ω House  
 Manset 15 Park Street  
 Biddeford Balentine Hall  
 Stillwater Stillwater  
 Bangor R.F.D. #1, Bangor  
 West Jonesport 209 H. H. Hall  
 Sebago Lake Φ H K House  
 Albion A T Ω House  
 Springfield, Mass. Σ N House  
 East Orange, N. J. Φ H K House  
 Ellsworth Σ X House  
 Newport Δ X A House  
 Jonesport B Θ Π House  
 Sanford Mt. Vernon House  
 New Portland 16 Pine Street  
 Rockland Θ X House  
 Milltown Σ X House  
 Gardiner Θ X House  
 Machias Φ Γ Δ House  
 Lisbon Falls Balentine Hall  
 Lewiston K Σ House  
 Kittery 101 H. H. Hall  
 Brewer Balentine Hall  
 Old Town Φ K Σ House  
 Brooklyn, N. Y. Φ E Π House



## FRESHMEN

Abbott, Floyd Nelson, Me.	<i>Albion</i>	A T Ω House
Adams, Rose Mary, Arts	<i>Rockland</i>	Balentine Hall
Adams, Thomas Edward, Ee.	<i>Jackman</i>	Stillwater
Allen, Stanley Parsons, Ce.	<i>Jay</i>	3 Park Street
Allen, William Mayo, Ch.	<i>Portland</i>	Θ X House
Ammidown, Theodore Warren, Me.	<i>Mattapan, Mass.</i>	87 Park Street
Andrews, Egbert Morrill, Ce.	<i>Gray</i>	College Road
Andrews, John Southard, Ch.	<i>Gray</i>	College Road
Andrews, Joseph Olin, Ee.	<i>Wytopitlock</i>	411 H. H. Hall
Andrews, Lois May, Arts	<i>Stillwater</i>	Stillwater
Armstrong, Grace Phelps, He.	<i>Rockland</i>	Balentine Hall
Aronson, Eli, Me.	<i>Hartford, Conn.</i>	45 Mill Street
Arseneault, Allee, Ch.	<i>Bucksport</i>	309 H. H. Hall
Atkins, Katherine Emily, Arts	<i>Bangor</i>	Balentine Annex
Atwood, Horace Sears, Ce.	<i>Calais</i>	55 Park Street
Bailey, Irving Colby, Ag.	<i>Caribou</i>	7 Pleasant Street
Bailey, Margery Evelyn, Arts	<i>Dexter</i>	53 Main Street
Bangs, Hilda, He.	<i>Orono</i>	University Inn
Banks, Curtis Forbush, Eng.	<i>Westboro, Mass.</i>	Σ X House
Bartlett, Edmund Hobart, Ce.	<i>Orono</i>	148 College Road
Beal, Edith Annette, Arts	<i>Bangor</i>	Balentine Hall
Bean, Francis Irving, Fy.	<i>Bradford, Mass.</i>	32 Pierce Street
Belyea, Harry Alton, Arts	<i>Gardiner</i>	25 Mill Street
Berce, Hudson Carlton, Ag.	<i>Caribou</i>	7 Pleasant Street
Bergstrom, Everett Emanuel	<i>Worcester, Mass.</i>	31 Forest Avenue
Gustaf, Arts	<i>East Sumner</i>	A T Ω House
Berkeley, Edward John, Arts	<i>Revere, Mass.</i>	1 Middle Street
Bernstein, George, Arts	<i>Portland</i>	Φ Ε Π House
Bernstein, Louis, Arts	<i>Houlton</i>	Σ X House
Berrie, Lloyd Harvey, Arts	<i>Albion</i>	162 College Road
Besse, Arline Day, Arts	<i>Portland</i>	Balentine Hall
Bird, Ethel Marie, Fr.	<i>Medford, Mass.</i>	Δ T Δ House
Blair, James Tweddle, Ag.	<i>Houlton</i>	Σ X House
Blake, Ralph Scott, Ch.	<i>Houlton</i>	Φ Γ Δ House
Blethen, Fred Alton, Ee.	<i>Foxcroft</i>	Stillwater
Blethen, Lawrence Burton, Eng.	<i>Old Town</i>	Old Town
Bonneau, Joseph Leo, Arts	<i>Waterville</i>	K Σ House
Booker, George Ansyl, Arts	<i>Athens</i>	34 Crosby Street
Boston, Jane Hilda, He.	<i>East Millinocket</i>	Θ X House
Bouchard, George Irving, Ee.	<i>Groveton, N. H.</i>	86 Park Street
Boucher, Clement Wendell, Ce.	<i>Bluehill</i>	401 Oak Hall
Bowden, Marvin Ives, Ag.		

Bowles, Elliott Smith, Ch. Eng.	<i>Machias</i>	8 Middle Street
Boyden, James Parker, Jr., Ce.	<i>Brookline, Mass.</i>	A T Ω House
Brackett, Madalene, Arts	<i>Milo</i>	Balentine Hall
Bridge, Carroll Joseph, Ag.	<i>Dexter</i>	201 H. H. Hall
Bridgham, Edward Theodore, Ch. Eng.	<i>Brewer</i>	Brewer
Brown, Edna Elizabeth, Arts	<i>Bangor</i>	62 Fifth Street
Brown, Mildred Greely, He.	<i>Readfield Depot</i>	32 Mill Street
Brown, Ralph Clifton, Me.	<i>Portland</i>	Θ X House
Brown, Ralph Leonard, Arts	<i>Bangor</i>	B Θ Π House
Brown, Stephen Sylvester, Arts	<i>Mars Hill</i>	
		64 Division St., Bangor
Bryant Hortense Genevieve, Arts	<i>Portland</i>	166 College Road
Buck, Richard Clark, Ce.	<i>Reading, Mass.</i>	Δ T Δ House
Bunker, Alice Maud, He.	<i>Bangor</i>	Mt. Vernon House
Bunten, Walter Joseph, Arts	<i>Livermore Falls</i>	Σ N House
Burbank, Charles Payson, Ag.	<i>Yarmouth</i>	B Θ Π House
Burditt, Donald Brimigion, Arts	<i>Rumford</i>	Δ T Δ House
Burnham, Charles Alphonse, Arts	<i>Machias</i>	103 H. H. Hall
Burton, Helen Charlotte, He.	<i>Sangerville</i>	Balentine Annex
Burton, Raymond Harold, Fy.	<i>Portland</i>	309 Oak Hall
Buzzell, Hillard Hodgdon, Arts	<i>Belfast</i>	35 Park Street
		College Road
Cambell, Charles Osborne, Fy.	<i>West Gray</i>	College Road
Cambell, Chester Wendell, Ce.	<i>West Gray</i>	College Road
Candage, Harry Wells, Ce.	<i>Waterville</i>	Stillwater
Carroll, Philip Tracy, Me.	<i>Southwest Harbor</i>	55 Park Street
Cavanaugh, William Thomas, Arts	<i>West Springfield, Mass.</i>	
		College Road
Chandler, John Winthrop, Ce.	<i>Newcastle</i>	42 Oak Street
Chellis, Allen Morris, Ee.	<i>Kezar Falls</i>	110 Oak Hall
Chippendale, John Thomas, Jr., Arts	<i>Auburn</i>	407 Oak Hall
Clark, Carl Alfred, Ag.	<i>Calais</i>	80 Main Street
Clark, Elmer Wescott, Arts	<i>Masardis</i>	North Main Street
Clark, Hilda Louise, Arts	<i>Southwest Harbor</i>	27 Park Street
Clarke, Catherine Louise, Arts	<i>Pemaquid</i>	Balentine Annex
Clement, Bernice Wiona, Arts	<i>North Jay</i>	Balentine Hall
Clements, Norris Charles, Ag.	<i>Winterport</i>	306 H. H. Hall
Cluff, Marion Consuelo, Arts	<i>Bangor</i>	Balentine Annex
Cobb, George Kenneth, Arts	<i>Millinocket</i>	Σ A E House
Coburn, Aura Eugene, Ch. Eng.	<i>Dover-Foxcroft</i>	Δ T Δ House
Coburn, George Newton, Fy.	<i>Weld</i>	College Road
Coffin, Leland Victor, Fy.	<i>West Paris</i>	206 Oak Hall
Cohen, Harry, Arts	<i>Taunton, Mass.</i>	Φ E Π House
Cohen, Isadore, Arts	<i>Bangor</i>	22 Union Street
Cohen, Nathan Robert, Arts	<i>Bangor</i>	Φ E Π House

Cohen, Philip, Ag.	Taunton, Mass.	Φ Ε Η House
Cole, Ralph Eugene, Ee.	Princeton	311 H. H. Hall
Coleman, Sidney Bowers, Ee.	Saco	311 H. H. Hall
Collings, Donald Windsor, Ee.	Leeds	408 H. H. Hall
Collins, Charles Sidney, Ee.	Portland	3 Park Street
Comins, Rubena Isabella, Arts	Brewer	Brewer
Comstock, Virgil Wesley, Ch. Eng.	Old Town	Old Town
Conley, John Benedict, Arts	Portland	Α Τ Ω House
Connelly, Milton Edward, Arts	Amesbury, Mass.	56 Park Street
Connors, Anna Francesca, Arts	South Eliot	134 College Road
Connor, Lawrence Coney, Fy.	Bangor	Κ Σ House
Conti, Armando John, Jr., Ee.	Eastport	Κ Σ House
Coombs, Grace Frances, Arts	Bangor	Mt. Vernon House
Cooper, Bessie Norma, Arts	Bangor	259 Essex Street
Cooper, Llewellyn Lithgow, Ee.	Augusta	Φ Κ Σ House
Corey, Erma Genevieve, Arts	Portland	32 College Road
Crockett, Ruth Rena, Arts	Portland	Balentine Hall
Crosby, Rose Charlotte, Arts	Bangor	Mt. Vernon House
Cross, John Hubert, Ch. Eng.	Augusta	Β Θ Η House
Crowley, Fred Joseph, Me.	Biddeford	36 Grove Street
Cunningham, Wesley Merritt, Ag.	Patten	Κ Σ House
Curran, Edward Matthew, Arts	Bangor	37 Birch Street
Curran, Rosemary, Arts	Old Town	Old Town
Cutts, Cecil Jewett, Ce.	Portland	Φ Γ Δ House
Daggett, Hale Otis, Ee.	Princeton	Δ Τ Δ House
Davenport, Bruce Ira, Arts	Phillips	Α Χ Α House
Davis, Lester Neal, Arts	Kennebunk	Β Θ Η House
Davis, Lillian Antoinette, He.	Belfast	Balentine Hall
Davis, Norman Sewell, Ag.	Dover-Foxcroft	106 Oak Hall
Dawson, Leroy Lendon, Fy.	Vergennes, Vt.	25 Mill Street
Dawson, Richard Crawford, Ch. Eng.	Claremont, N. H.	54 Pine Street
Dean, Elwin Linwood, Ee.	Greenville Junction	23 Park Street
Dobbins, Frank Parker, Ch. Eng.	Farmington	Σ Α Ε House
Doherty, James Rice, Me.	Bangor	55 Maple Street
Doherty, Shirley Austina, Arts	Rockland	Balentine Hall
Dole, Francis Stone, Ch. Eng.	South Brewer	South Brewer
Dolley, Roland Greeley, Arts	Bangor	135 Parkview Avenue
Dooley, Merrill Harmon, Ce.	Brewer	Brewer
Dougherty, Joseph Roy, Arts	Bangor	94 Palm Street
Douglas, Helene Elizabeth, Arts	Brunswick	162 College Road
Doughty, Randall Hubert, Ch. Eng.	Cumberland Center	110 Oak Hall
Downing, John Philip, Ag.	Bangor	57 Bennoch Street
Drinkwater, Ralph Edward, Fy.	Veazie	R.F.D. #7, Bangor

Dunn, Lucy Lawrence, Ch.

Dunton, James William, Ee.  
 Dwelley, Linwood Lyle, Arts  
 Eames, John Harry Anthony, Me.  
 Eastman, Carl Burleigh, Me.  
 Edgerly, Arthur Emery, Ag.  
 Ehrlich, Philip, Ce.

Elliott, Wilmer Rogers, Ag.  
 Ells, Frank Brown, Ee.  
 Emery, Harlan Julien, Ag.  
 English, Benjamin Worth, Me.  
 Erickson, Harold Victor, Arts  
 Everett, Roland Edward, Ee.  
 Everett, Vaughn Beveridge, Me.

Fagan, Thomas Moulton, Arts  
 Farrar, Frances Sarah, Arts  
 Felton, John Willis Eugene, Ch. Eng.  
 Field, Madeline Hazel, Arts  
 Field, Vena Bernadette, Arts  
 Fifield, Doris Frances, Arts  
 Finley, Donald Dean, Fy.  
 Fitzhenry, Raymond Chester, Ee.  
 Fletcher, Harold Roy, Me.  
 Fletcher, Mary Eva, Arts  
 Fogg, Madelene, Arts  
 Foster, John Robert, Ag.  
 Foster, Mildred Louise, Arts  
 French, Fred Cyrus, Jr., Me.  
 French, William Louis, Ch.  
 Friedman, Leo, Ch. Eng.  
 Frost, Harlord Stuart, Ce.

Gale, Abraham Nathan, Fy.  
 Gallison, Kathleen Elizabeth, Arts  
 Gammell, Ernest Osmond, Ee.

Garvin, Arthur Hollard, Jr., Ch.  
 Garvin, Harry Marshman, Ch.  
 Gerrish, Harold Lewis, Ee.  
 Gilley, Wendell Holmes, Me.  
 Glynn, Robert Martin, Ch. Eng.  
 Goldberg, David Abraham, Eng.

North Yarmouth

Mt. Vernon House  
 Bath  $\Sigma$  A E House  
 Meddybemps K  $\Sigma$  House  
 Bangor  $\Sigma$  A E House  
 West Buxton 402 H. H. Hall  
 Princeton B  $\Theta$   $\Pi$  House  
 East Boston, Mass.

104 H. H. Hall  
 Patten  $\Phi$  K  $\Sigma$  House  
 Portland  $\Phi$  H K House  
 Salisbury Cove  $\Sigma$  N House  
 New Haven, Conn.  $\Sigma$  X House  
 Fairfield 8 Island Avenue  
 Norridgewock 409 Oak Hall  
 Fort Fairfield  $\Phi$   $\Gamma$   $\Delta$  House

Portland  $\Sigma$  N House  
 Princeton 136 College Road  
 Camden  $\Phi$  K  $\Sigma$  House  
 Vanceboro 12 Park Street  
 Vanceboro Balentine Annex  
 Vinalhaven Balentine Annex  
 Orono K  $\Sigma$  House  
 Lubec K  $\Sigma$  House  
 Norway B  $\Theta$   $\Pi$  House  
 Vanceboro 28 Patten Street  
 Bangor Balentine Hall  
 Roxbury, Mass.  
 Dixfield 166 College Road  
 Andover 101 H. H. Hall  
 Turner B  $\Theta$   $\Pi$  House  
 Augusta 101 Oak Hall  
 Bar Harbor  $\Phi$   $\Gamma$   $\Delta$  House

Dorchester, Mass. Old Town  
 Bangor 105 Larkin Street  
 North Attleboro, Mass.  
 406 Oak Hall

Portland 54 Pine Street  
 Portland 54 Pine Street  
 Brownville 111 H. H. Hall  
 Southwest Harbor 55 Park Street  
 Portland College Road  
 Old Town Old Town

Goldsmith, Isador Kent, Arts	Orono	29 Park Street
Goodwin, Ernest Edward, Arts	Livermore Falls	Σ N House
Goodwin, Harold Raymond, Ee.	Garland	148 Main Street
Gorden, Rachel, He.	Livermore Falls	Balentine Hall
Grace, John de Baptist, Ce.	East Boston, Mass.	104 H. H. Hall
Graffam, Ralph Oakes, Arts	Old Town	Old Town
Graves, Glenwood Owen, Arts	Presque Isle	109 H. H. Hall
Greenlaw, Harold Aubrey, Arts	Masardis	54 Pine Street
Greenlaw, Helen Elaine, Arts	Masardis	46 Main Street
Gribbin, Merton James, Ch. Eng.	Portland	B Θ Π House
Griffiths, Eugene Benjamin, Arts	Presque Isle	103 H. H. Hall
Gross, Elroy Heyer, Ce.	Waldoboro	404 Oak Hall
Gruhn, George Herman, Fy.	Columbus, Wis.	K Σ House
Guilfoyle, Patrick Joseph, Ee.	Barre, Mass.	84 College Road
Hackett, Carleton Henry, Ch. Eng.	South Brewer	410 Oak Hall
Halde, Henrietta, Arts	Waterville	Balentine Hall
Hale, Francis Eugene, Ee.	Dexter	Φ H K House
Hale, Lyndon Earle, Arts	Norridgewock	411 Oak Hall
Haley, Francis Nelson, Ee.	Lynn, Mass.	Σ X House
Hall, Luther Crockett, Arts	Bath	102 Oak Hall
Hall, Nelson Blanchard, Arts	Kennebunk	A T Ω House
Hanington, Edith Mills, Arts	Calais	Balentine Hall
Hanley, Margaret Leonard, Arts	Thomaston	Balentine Hall
Hanna, Harvey Bedford, Ee.	Ashville	109 H. H. Hall
Hanson, John Francis, Ee.	Calais	7 Summer Street
Hardy, Oral Alton, Ag.	Stillwater	Stillwater
Harris, Mary Barrows, Arts	LaGrange	53 Main Street
Harrison, Frederick William, Arts	Houlton	Park Street
Haskell, George Albert, Me.	Lincoln	23 Park Street
Haskell, Robert Nelson, Ee.	Bangor	645 Hammond Street
Hastings, Donald Francis, Ee.	Rockland	212 H. H. Hall
Hatfield, William Barr, Ce.	Brewer	College Road
Higgins, Marshall Everett, Fy.	Townsend, Mass.	College Road
Hill, Alice Rider, Arts	Orono	162 College Road
Hillman, Earle Milton, Ag.	Bangor	Σ A E House
Hilton, Lawrence Theara, Arts	Portland	B Θ Π House
Hobson, Ralph William, Ag.	Portland	403 Oak Hall
Holbrook, Alfred Leroy, Fy.	North Anson	27 Park Street
Holdsworth, Fred William, Ee.	Methuen, Mass.	Σ A E House
Horrivich, Louis, Ch. Eng.	Hartford, Conn.	45 Mill Street
Horsman, Walter Blair, Ce.	Princeton	Σ A E House
Hovey, George Edmund, Arts	Milo	100 North Main Street
Hudon, Victor Joseph, Ee.	West Springfield, Mass.	Park Street



Hughes, James William, Arts  
 Humphrey, Orman Julian, Ce.  
 Hunnewell, Clayton Moore, Ee.  
 Hussey, Frank Washburn, Ag.  
 Huston, Arthur Leroy, Ee.  
 Hutchings, Roland Lee, Ce.  
 Hutchinson, Edna Marie, Arts  
 Hutton, John Charles, Arts  
 Hyde, Stanley Berry, Ce.

Innes, Edith Blanche, Arts  
 Irish, Clifford Virgil, Ee.  
 Isrealson, Jacob Arthur, Arts

Jackson, Arthur Herbert, Ce.  
 Jacobs, David Clement, Ce.  
 James, Ruel Leroy, Ee.  
 Johnson, Maurice Burton, Me.  
 Johnston, Donald Percy, Ce.  
 Jordan, Leonard Barker, Arts  
 Jordan, Shirley Webster, Ce.  
 Jordan, Stanley Dyer, Ee.

Kaakinen, Aaro, Fy.  
 Keene, Alton Percy, Me.  
 Kelleher, George Francis, Fy.  
 Kennard, George Harrison, Ce.  
 Keyte, William Albert, Fy.  
 Kittredge, Murray Kent, Ch. Eng.  
 Kneeland, Clarence Russell, Me.  
 Knowlton, Maurice Donald, Arts

LaCrosse, Wilfred Joseph, Fy.  
 Lake, Malcolm Fred, Me.  
 Lambert, William Burnham, Ch. Eng.  
 Lancaster, Jean Emmons, Arts  
 Lane, Stanley Clark, Ch.  
 LaPlant, John Ervin, Ag.  
 Lawler, Elizabeth, Arts

Lawry, John Ansel, Me.  
 Leighton, Cecil Victor, Ee.  
 Lejonhud, Carl August, Me.  
 Libby, Alice Maude, He.  
 Libby, Carl Freeman, Me.

Brooklyn, N. Y. Old Town  
 Bangor 63 Grove Street  
 Caratunk 148 Main Street  
 Presque Isle 110 H. H. Hall  
 Waterville  $\Theta$  X House  
 Orland 54 Pine Street  
 North Dexter Balentine Annex  
 Brunswick  $\Phi$  H K House  
 Saco K  $\Sigma$  House

Hall Quarry 46 Main Street  
 Gorham 409 H. H. Hall  
 Portland 10 Mill Street

Bethel 8 Middle Street  
 Rockland, Mass. 112 Oak Hall  
 Princeton 103 H. H. Hall  
 Portland R.F.D. #7, Bangor  
 Bangor 352 Center Street  
 Westbrook K  $\Sigma$  House  
 Mechanic Falls  $\Phi$  H K House  
 Cape Elizabeth  $\Sigma$  N House

Fitchburg, Mass. 210 Oak Hall  
 Skinner  $\Sigma$  N House  
 Ware, Mass. 7 Summer Street  
 West Baldwin 412 Oak Hall  
 Dexter  $\Phi$  H K House  
 Milo 211 H. H. Hall  
 Newburyport, Mass. A T  $\Omega$  House  
 Skowhegan 102 Oak Hall

South Orrington K  $\Sigma$  House  
 Wilton  $\Delta$  X A House  
 Brewer 410 Oak Hall  
 Madison  $\Phi$  H K House  
 Brockton, Mass. 36 Grove Street  
 Gardiner 8 Middle Street  
 Southwest Harbor 134 College Road

Fairfield B  $\Theta$  II House  
 Woodland College Road  
 South Portland 103 H. H. Hall  
 Vinalhaven 36 College Road  
 Biddeford  $\Sigma$  A E House



Libby, George Thompson, Ch.	Augusta	48 Pleasant Street
Libby, Paul Wescott, Me.	Gray	404 H. H. Hall
Lincoln, Frank Louis, Ce.	Houlton	Θ X House
Lindsey, Marion Florence, Arts	North Orrington	Balentine Annex
Lineken, Elizabeth Marietta, He.	Thomaston	Balentine Hall
Lineken, Maynard George, Fy.	Thomaston	Φ K Σ House
Linscott, Paul Harding, Fy.	Brownfield	B Θ Π House
Little, Guilbert Raymond, Ce.	Woodfords	86 Park Street
Littlefield, Walter Arnold, Arts	Orono	188 Main Street
Looke, Winona Retta, Arts	Jonesboro	Balentine Hall
Loomis, Mary Elizabeth, Arts	Yalesville, Conn.	15 Pleasant Street
Lovell, Harold Irving, Arts	Lynn, Mass.	Δ T Δ House
Ludwig, Edward Ingraham, Fy.	Thomaston	401 Oak Hall
Lyford, Byley Francis, Fy.	Vinalhaven	74 North Main Street
Lynch, Arline Frances, Arts	Brewer	Brewer
McAlister, Chester Roger, Arts	West Paris	31 Forest Avenue
McCrystle, John Darwin, Ch. Eng.	Berlin, N. H.	Δ T Δ House
McDougall, Julia Douglass, He.	Milo	36 College Road
McEwen, Charles Milton, Ag.	Bowdoinham	Σ Φ Σ House
McGregor, Louise, He.	Calais	136 College Road
MacGregory, Kenneth Winslow, Fy.	Brockton, Mass.	Δ X Δ House
McKechnie, Ishmeal, Fy.	Sanford	Φ H K House
MacLaughlin, Marlin Vance, Ee.	Brewer	Brewer
MacLean, Donald Newman, Ee.	Portland	303 H. H. Hall
MacLean, Frank Neil, Ce.	Bangor	52 Railroad Street
McPhetres, Madeline Marie, Arts	Sangerville	Campus
Maher, Theodore James, Ee.	Bangor	59 Highland Avenue
Mahoney, Kathleen Anne, Arts	Biddeford	15 Pleasant Street
Maling, Rachel Dorcas, He.	Bangor	Balentine Hall
Malloy, Walter James, Fy.	Gorham	Θ X House
Mandelbaum, Joseph, Arts	Lawrence, Mass.	Φ E Π House
Mann, Benjamin DeWolfe, Ee.	Milltown	Σ X House
Mann, Clyde Franklyn, Ch.	Shapleigh	8 Island Avenue
Marquis, Solomon, Arts	Dorchester, Mass.	Φ E Π House
Marr, Frank Wesley, Ee.	Island Falls	402 H. H. Hall
Marsh, John Fenton, Fy.	Dexter	Stillwater
Martin, Llewellyn Charles, Ee.	Rockport, Mass.	Σ Φ Σ House
Mason, John Carlton, Fy.	South Easton, Mass.	Σ X House
Mayer, Silsby Briggs, Me.	Bangor	107 Highland Street
Milan, Eleanor Mary, He.	Bangor	133 Second Street
Mills, David William, Ag.	Augusta	86 Park Street
Mills, Grant Brickett, Ce.	Reading, Mass.	Δ T Δ House

Modery, Harold Kenneth, Ce.  
 Montgomery, Raymond Almiran, Ce.  
 Moody, Charles Frederick, Fy.  
 Morrill, Frank Baxter, Ee.  
 Morrill, John Anderson, Fy.  
 Morrison, Robert Wentworth, Ce.  
 Moss, Edward Arthur David, Jr., Arts  
 Mossler, Dorothy Edwina, Arts  
 Moulton, Harold Clemons, Me.  
 Munro, Josephine Ivory, He.  
 Murray, Eleanor deWolf, He.

Murray, Joseph Magee, Arts

Muzzey, George Aldrich, Ce.

Nadeau, Louis Anthony, Ee.  
 Nevells, Frederick Leroy, Ch. Eng.  
 Nicholson, Murray Levi, Arts  
 Norton, Lester Linwood, Ee.  
 Norwood, Hope, He.

Nowland, James, Ce.  
 Noyes, Howard Franklin, Ag.

Oliver, Velma Katherine, Arts  
 Osborne, Elwood Noyes, Ch. Eng.  
 Osborne, Mildred Eleanor, Arts  
 Overend, Doris, He.

Packard, Mansfield Morton, Ee.  
 Page, Harriet Evangeline, Arts  
 Page, Sydney Jerome, Fy.  
 Parmenter, Arthur Neal, Fy.  
 Parsons, Frederick Henry, Me.

Patchell, Blake Olyn, Ee.  
 Patten, Clyde Gowell, Ee.  
 Paul, Henry, Arts  
 Peabody, Elizabeth Tracy, Arts  
 Pendleton, Arthur Norman, Ag.  
 Pendleton, Elizabeth Estelle, Arts  
 Penley, Donald Watson, Ee.  
 Percival, Ethelyn Marcia, Arts

Orono 87 Park Street  
 New Haven, Conn. K 2 House  
 Saco 203 H. H. Hall  
 Milo 56 Park Street  
 Gray 2 A E House  
 Bangor 25 Grove Street  
 Worcester, Mass. 204 Oak Hall  
 South Brewer Balentine Annex  
 Hiram 312 H. H. Hall  
 Houlton 32 College Road  
 Hampden Highlands  
 Mt. Vernon House  
 Hampden Highlands

Φ Γ Δ House  
 South Berwick 25 Grove Street

Waterville 7 Summer Street  
 South Portland 312 H. H. Hall  
 East Millinocket 2 X House  
 Cornish 3 Park Street  
 Southwest Harbor  
 Balentine Annex  
 Ashland 32 Peters Street  
 Marblehead, Mass. Φ K 2 House

Dexter 29 Bennoch Street  
 Fairfield Stillwater  
 Bangor Balentine Hall  
 Worcester, Mass.  
 136 College Road

Bryant Pond 108 Oak Hall  
 Orono 37 Middle Street  
 Orono 37 Middle Street  
 Brockton, Mass. 36 Grove Street  
 Franklin Park, Mass.

Δ T Δ House  
 Wypitlock 111 H. H. Hall  
 Topsham Φ H K House  
 Bangor 234 York Street  
 Orono 115 Main Street  
 Dark Harbor Stillwater  
 Bangor Balentine Hall  
 Dexter 201 H. H. Hall  
 Bangor 108 Seventh Street

Perkins, Frances Elizabeth, He.  
 Phillips, Charles Russell, Ee.  
 Pickard, Morita Jessie, Arts  
 Pike, Robert Smith, Ag.  
 Pillsbury, Dan Abner, Ag.  
 Plaisted, Harold James, Ee.  
 Plummer, Ralph Chalmers, Fy.  
 Polakewich, Samuel Ralph, Arts  
 Poole, Ivan Homer, Me.  
 Pooler, Leonard Laurence, Ch. Eng.  
 Powell, Donald William, Ce.  
 Prescher, Adolph Rexroth, Fy.  
 Pressey, Harold Elbert, Arts  
 Pretto, George Edward, Arts  
 Priest, Hubert Eugene, Arts  
 Prince, Kenneth Neal, Arts  
 Prouty, Kenneth Alton, Arts  
 Pulk, Dexter William, Fy.  
 Purinton, Bernice Irene, Arts

Quincy, Sarah Louise, He.

Rafferty, Robert William, Arts

Ramsay, John Edward, Fy.  
 Rand, Hazel Clara, Arts  
 Reardon, Edward Dennis, Me.  
 Reed, Lewis Hersey, Ee.  
 Reed, Reginald Lee, Ce.  
 Repscha, Albert Henry, Me.  
 Reynolds, Nathan Oliver, Arts  
 Rich, Eugene Conklin Clark, Arts  
 Rich, Robert Pratt, Ch. Eng.  
 Rich, William Wallace, Jr., Ch. Eng.  
 Richards, Sumner Fernald, Ch.  
 Ridlon, Ernest Starr, Me.  
 Ridlon, Hilton Joseph, Ch. Eng.  
 Ringdahl, Eleanor Gertrude, Arts  
 Robinson, Frank Lawrence, Ee.  
 Rogers, Howard LaForrest, Ce.  
 Ross, Everett Sedgely, Ee.  
 Rubinoff, David, Arts

Sanborn, Doris May, Arts  
 Sanborn, Harry Foresti, Ee.

*Machias* Balentine Hall  
*New Bedford, Mass.* Park Street  
*Bangor* 5 Elm Street  
*Cornish* 412 H. H. Hall  
*Rangeley* Campus  
*Portland* Σ N House  
*Bangor* 360 Center Street  
*Biddeford* Φ E Π House  
*Vinalhaven* 208 Oak Hall  
*Bangor* 209 Pine Street  
*Orono* 75 Forest Avenue  
*Plantsville, Conn.* 48 Pine Street  
*Bangor* 487 Union Street  
*Orono* Pine & Elm Streets  
*Brunswick* Φ H K House  
*Portland* Σ X House  
*Wytopitlock* Σ Φ Σ House  
*Veazie* R.F.D. #7, Bangor  
*Bangor* 134 College Road

*Bridgton* Balentine Hall

*Willimantic, Conn.*

100 North Main Street  
*Mars Hill* K Σ House  
*Sebago Lake* 12 Park Street  
*Concord, N. H.* K Σ House  
*Springfield* Σ N House  
*Portland* Θ X House  
*Derby* 309 Oak Hall  
*Woodfords* Δ T Δ House  
*Rockland* K Σ House  
*Hingham, Mass.* 306 Oak Hall  
*Hingham, Mass.* 306 Oak Hall  
*Dover-Foxcroft* 106 Oak Hall  
*Cape Porpoise* 302 H. H. Hall  
*Kezar Falls* 104 Oak Hall  
*New Sweden* 12 Park Street  
*Princeton* 103 Oak Hall  
*Greenville* 8 Island Avenue  
*Rangeley* Σ A E House  
*Portland* 1 Middle Street

*Old Town* Old Town  
*West Baldwin* Stillwater

Saunders, Don Hubert, Ch.	Lubec	410 H. H. Hall
Savage, Hoyt Bernard, Fy.	Milo	305 Oak Hall
Sawyer, Herbert Hunt, Me.	Augusta	207 Oak Hall
Scannell, Walter Daniel, Ce.	Worcester, Mass.	31 Forest Avenue
Schwartz, Nathan James, Ee.	Portland	45 Mill Street
Scott, Ernest Burns, Ee.	Gardiner	Θ X House
Searles, Paul Joseph, Arts	Bangor	363 Union Street
Sennett, Lincoln Asher, Arts	Albion	8 Island Avenue
Shaw, Alice Emelyn, Arts	Caribou	Balentine Hall
Shaw, Frank Everett, Me.	Milo	Σ A E House
Shea, Leon Hammel, Ee.	Rumford	409 Oak Hall
Shepherd, Francis Greenwood, Ee.	Gloucester, Mass.	Σ Φ Σ House
Sherburne, Lauris Norton, Arts	Newport	B Θ Π House
Silverman, Herman Samuel, Ee.	Portland	107 Oak Hall
Simmons, Ralph Morse, Ee.	Belfast	310 H. H. Hall
Skillin, Alton Kane, Ch.	South Portland	Δ T Δ House
Small, Florian Elwyn, Arts	Freedom	36 Grove Street
Smart, Stanislaus Joseph, Ee.	Port aux Basques, New-	
	foundland	15 Water Street
Smith, Carl Burdette, Ag.	Presque Isle	110 H. H. Hall
Smith, Carleton Goodyear, Ch. Eng.	New Haven, Conn.	Σ X House
Smith, Charles Joseph, Ch.	Mexico	Λ X A House
Smith, Hollis Ayer, Fy.	Haverhill, Mass.	Φ K Σ House
Smith, Mitchell William, Ag.	Newark, N. J.	1 Middle Street
Smith, Sidney Alfred, Ee.	Groveton, N. H.	23 Bennoch Street
Smith, Virgil Calderwood, Me.	Vinalhaven	208 Oak Hall
Snow, Edwin Payson, Ag.	Atkinson	102 Oak Hall
Soderberg, Frederic Arnott, Ch. Eng.	Bangor	230 Essex Street
Stackpole, Donald William, Ce.	Bridgewater	Stillwater
Stanley, Preston John, Me.	Kezar Falls	206 Oak Hall
Stella, Paul Joseph, Arts	Portsmouth, N. H.	Λ X Δ House
Stevens, Dearborn Bearce, Me.	Ashland	Φ H K House
Stevens, Earle Maynard, Me.	West Paris	401 H. H. Hall
Steward, Evangeline, He.	St. Johnsbury, Vt.	College Road
Stone, David William, Ch.	Garland	88 Main Street
Stone, Roger Besson, Arts	Swampscott, Mass.	K Σ House
Stowell, Hubert Kirke, Fy.	Dixfield	College Road
Stratton, Andrew Henry, Arts	Hancock	209 Oak Hall
Sullivan, Daniel Lawrence, Fy.	Reading, Mass.	25 Mill Street
Sullivan, Edward Connors, Ag.	Veazie	R.F.D. #7, Bangor
Sumner, Laurence Keith, Arts	Steuben	109 Oak Hall
Suttie, John Harvey, Arts	Waterville	Δ T Ω House
Sweetser, Marston Ormond, Ag.	Orono	Φ Γ Δ House

Swett, Clyde Irving, Ch.	Bangor	78 First Street
Tabachnick, Henry Myer, Arts	Portland	Φ E Π House
Tarbell, John Weatherbee, Arts	Bangor	72 Somerset Street
Tarr, James Edward, Ee.	Mapleton	College Road
Taylor, Harold Albert, Arts	Rumford	Σ N House
Taylor, Iral Davis, Ag.	West Springfield, Mass.	225 Main Street
Taylor, Raymond Irving, Ag.	Biddeford	407 Oak Hall
Thomas, Whitney Pembroke, Arts	Augusta	48 Pine Street
Thornton, Prescott Ervin, Ag.	Springfield	Peters Street
Thurston, Annie Belle, He.	South Union	12 Park Street
Tibbetts, Martelle Arnold, Ce.	Anson	406 Oak Hall
Titcomb, Byron Emerson, Me.	Monticello	Θ X House
Tobey, Alfred Rickerby, Fy.	Kittery Point	100 North Main Street
Toohy, Phyllis Maynard, Arts	Berlin, N. H.	36 College Road
Topolosky, John Peter, Arts	Woodland	K Σ House
Towne, Frances Lucile, Arts	Milo	Balentine Annex
Tozier, Claude Hill, Ee.	Albion	A T Ω House
Tracy, Clayton Allan, Ce.	Orono	56 Park Street
Trainer, Carl Francis, Ch. Eng.	Bangor	59 Essex Street
Trouant, Donald Lynn, Arts	Augusta	Σ Φ Σ House
True, Ronald Thurston, Me.	Portland	Φ H K House
Turner, Alden Herbert, Arts	Topsham	Φ H K House
Turner, Otto Chessman, Ee.	Livermore	B Θ Π House
Twombly, Earle Cecil, Me.	Newburyport, Mass.	A T Ω House
Tyndall, Balfour Sterling, Fy.	Brockton, Mass.	Park Street
Vallee, Hubert Prior, Arts	Westbrook	Σ A E House
Walker, Lynnette Agnes, Arts	Orono	38 Penobscot Street
Wallace, Helen Ernestine, Arts	Biddeford	Balentine Hall
Wallace, Mary Elizabeth, He.	Orono	166 College Road
Ward, Margaret Rice, Arts	Berlin, N. H.	15 Pleasant Street
Wardwell, Gerald Cushman, Ce.	Augusta	10 Mill Street
Ware, Arlene Jackson, Arts	Bangor	Brewer
Waterhouse, Mary, He.	Biddeford	Balentine Hall
Webber, Harold Clark, Ch.	Randolph	Σ X House
Weeks, Ruth Adelia, He.	Gardiner	Balentine Annex
Wentworth, Wilbert Estranda, Arts	Freedom	102 H. H. Hall
Wheeler, Ruth Frances, Arts	Portland	Balentine Hall
Whited, William Joseph, Ch. Eng.	Houlton	8 Island Avenue
Whiteside, Osmond Steen, Arts	Bangor	224 Essex Street
Whitman, Leon Wyman, Ag.	Wayne	207 Oak Hall



Whitmore, Avery Heath, Ee.  
 Whitney, Harland Libby, Ee.  
 Whittemore, Earle Bennett, Me.  
 Whittier, Philip Page, Arts  
 Wilkinson, Ernest Leyland, Ee.  
 Willis, Kleba Leslie, Ee.  
 Wilson, Cuthbert Burns, Ee.  
 Winslow, Daphne, Arts  
 Winter, Harold Lewie, Ee.  
 Wixson, Charles Wesley, Ce.  
 Wood, Earle Mansfield, Arts  
 Wood, Ivan Martelle, Arts  
 Woodard, Pearl Ruby, Arts

Young, Rodney Alden, Arts

Zollo, Felice John, Arts

*Bangor* 124 Jackson Street  
*Gray* 74 North Main Street  
*Worcester, Mass.* B Θ Π House  
*Bangor* 71 Grant Street  
*Methuen, Mass.* Σ A E House  
*Harmony* 8 Island Avenue  
*Bath* Φ Γ Δ House  
*Rockland* Balentine Annex  
*Livermore Falls* Σ Φ Σ House  
*Waterville* 304 H. H. Hall  
*Sebago Lake* 47 Mill Street  
*North Anson* 8 Island Avenue  
*Greenville Junction*  
 Balentine Annex

*Greenville* 3 Park Street

*Boston, Mass.* 87 Park Street

### SPECIAL STUDENTS

Bean, Harold John, Ch. Eng.  
 Bean, Hervey Selden, Ag.  
 Beatham, Mildred Ava, Eh.  
 Behringer, John Stephen, Arts  
 Bernard, James Lawrence, Ee.  
 Boothby, Edwin Warren, Ee.

Callighan, Olin William, Ch. Eng.  
 Carpenter, Guy Francis, Ce.  
 Chandler, Florence Libby, Bl.  
 Clare, Cora May, Arts  
 Cratty, Reginald Flanders, Arts

Davis, Reuben Madison, Ag.  
 Dressel, Donald Burton, Fy.

Ersline, Paul Franklyn, Me.  
 Felker, Everett Joshua, Ed.  
 French, Arthur Herbert, Ch.

Harden, Hortense, Arts  
 Houghton, Amory McLellan, Fy.

Jackson, Stanley Wallace, Ch.

*Pawtucket, R. I.* 10 Mill Street  
*Vienna* 312 H. H. Hall  
*Orono* 33 Bennoch Street  
*Elmhurst, N. Y.* 405 H. H. Hall  
*Orono* A T Ω House  
*Portland* Σ X House

*Kalamazoo, Mich.* 10 Mill Street  
*Manchester* 7 Pleasant Street  
*Orono* 42 Oak Street  
*St. Francis* 53 Main Street  
*Bangor* Penobscot Exchange

*Indian Point* 70 Pine Street  
*Bangor* 33 Bennoch Street

*Portland* 33 Pond Street  
*Brooks* Forest Avenue  
*Brewer* Σ A E House

*South Brewer* South Brewer  
*Bath* A T Ω House

*Melbourne, Australia*  
 36 College Road



## SPECIAL STUDENTS

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Jorgenson, Anna Matilda, Arts	<i>Bangor</i>	Balentine Hall
Knight, Winfield Wescott, Ee.	<i>Camden</i>	Φ K Σ House
Lawrey, Christabel Finley, Sp.	<i>Orono</i>	167 Mill Street
Lincoln, Donald Curtis, Ch. Eng.	<i>Russell, Mass.</i>	405 H. H. Hall
Littlefield, Willis Arlon, Ce.	<i>Sanford</i>	Θ X House
McCobb, John Lombard, Ce.	<i>Woodfords</i>	Φ H K House
Manchester, Rachel Fuller, Arts	<i>Northeast Harbor</i>	135 Forest Avenue
Mason, Margaret Rogers, Eh.	<i>Bangor</i>	Mt. Vernon House
Miller, Ira Lyman, Fy.	<i>Brewer</i>	Brewer
Muir, William Francis, Ee.	<i>Brunswick</i>	104 H. H. Hall
Mullin, LeRoy Allen, Ee.	<i>Cape Elizabeth</i>	36 Grove Street
Newcomb, Bernard Arlin, Ch.	<i>Great Works</i>	Great Works
Pulk, Mary Elsie, Arts	<i>Veazie</i>	R.F.D. #7, Bangor
Reid, John Alexander, Ch.	<i>Berlin, N. H.</i>	Σ X House
Richardson, Harrison Lambert, Ag.	<i>Orono</i>	Bennoch Street
Schenkel, Robert John, Arts	<i>Orono</i>	120 Main Street
Smart, Edgar Solomon, Fy.	<i>Winterport</i>	36 Grove Street
Serpas, Ralph Joseph, Ch. Eng.	<i>Poydras, La.</i>	Θ X House
Shapiro, Max Gerald, Fy.	<i>Newport</i>	203 Oak Hall
Smith, Edwin Richard, Ee.	<i>Hollis Center</i>	405 Oak Hall
Smith, Leah Dolores, Ed.	<i>Jonesport</i>	80 North Main Street
Smith, Revere Rand, Ee.	<i>Hollis Center</i>	405 Oak Hall
Southwick, William Raymond, Fy.	<i>Kezar Falls</i>	Old Town
Stewart, Raymond Oliver, Ch.	<i>Farmington</i>	55 Bennoch Street
Talento, Crispulo Domingo, Ch.	<i>Manila, P. I.</i>	29 Bennoch Street
Thompson, Charles Fremont, Arts	<i>Waterville</i>	Σ A E House
Tingley, Van Ardon, Ag.	<i>Houlton</i>	Σ Φ Σ House
Waterhouse, Ruth Elva, Arts	<i>Old Town</i>	Balentine Hall
Weeks, Julien Owen, Arts	<i>Portland</i>	Σ X House
Wilde, Herman Emil, Ch.	<i>Lawrence, Mass.</i>	52 Penobscot Street
Woodward, Margaret Carver, He.	<i>Bangor</i>	72 Broadway

## SCHOOL COURSE IN AGRICULTURE

## SECOND YEAR

Bailey, Russell Manley	<i>Waterville</i>	311 Oak Hall
Boothby, Leslie Curtis	<i>Livermore Falls</i>	Σ Φ Σ House
Gamage, John Carter Fountain	<i>Portland</i>	308 Oak Hall
Hallett, Milton Bradford	<i>Ashland</i>	404 Oak Hall
Osgood, Eben Averill	<i>Kingman</i>	Σ X House
Pillsbury, Ralph Allan	<i>Rangeley</i>	Campus
Sprowle, William James	<i>Newport</i>	54 Pine Street

## FIRST YEAR

Bernard, George Joseph	<i>Orono</i>	R.F.D. Bennoch Street
Bernard, William James	<i>Sanford</i>	R.F.D. Bennoch Street
Carter, Oscar Miles	<i>Lynn, Mass.</i>	3 Park Street
Cayonette, Francis Joseph	<i>Augusta</i>	32 Pierce Street
Clark, Leon Leathe	<i>Orono</i>	14 Pond Street
Conant, Earle Raymond	<i>Rockland</i>	304 H. H. Hall
Crediford, Leon Emery	<i>Shapleigh</i>	8 Island Avenue
Croston, John Charles	<i>Topsham</i>	Orono
Goff, William True	<i>Skowhegan</i>	30 Crosby Street
Hinkley, Thomas James	<i>East Corinth</i>	Stillwater
Howard, Irving Lester	<i>Waterville</i>	36 Grove Street
Ingraham, Owen Bryan	<i>Clinton</i>	8 Middle Street
Lane, Charles Valentine	<i>Red Beach</i>	Stillwater
Logan, Albert C.	<i>Houlton</i>	80 North Main Street
Merrill, Norman Lee	<i>Gardiner</i>	36 Grove Street
Niles, Ernest Alton	<i>Monmouth</i>	7 Park Street
Schoppee, Hollis Wilson	<i>Machias</i>	7 Pleasant Street
Stone, Raymond Averill	<i>Fort Fairfield</i>	109 Oak Hall
Temple, Levi Glenwood	<i>Limestone</i>	Σ Φ Σ House
Tucker, Harold Edward	<i>Pembroke</i>	83 Park Street
Wilson, Henry Charles	<i>Portland</i>	64 Hill Street
Wilson, Kenneth Cony	<i>Augusta</i>	8 Middle Street

## SUMMER TERM

Allen, Arabel Libby	<i>Richmond</i>
Allen, Clarence Edward	<i>Bangor</i>
Allen, William Henry, B.A.	<i>Bangor</i>
Maine, 1919	
Alward, Harry Allen	<i>Bangor</i>

Anderson, William Henry, B.S. Maine, 1920	<i>Bangor</i>
Arnold, Melville Arthur	<i>Everett, Mass.</i>
Arsenault, Arthur Joseph	<i>Portland</i>
Averill, Frank Given	<i>Old Town</i>
Bannister, Frank Cecil	<i>Cornish</i>
Bartlett, Louise, B.A. Maine, 1914	<i>Orono</i>
Barton, Lawrence Price	<i>Waterville</i>
Beal, Forrest Clement	<i>Milbridge</i>
Beale, Frank Swan, B. S. Maine, 1921	<i>Eastport</i>
Beaulieu, Jennie Christina, B.A. Maine, 1919	<i>Old Town</i>
Bellah, James Warner, Jr.	<i>Newark, N. J.</i>
Betgmann, Frederick Jacob	<i>Philadelphia, Pa.</i>
Beverly, Verne Curtis, B.S. Maine, 1920	<i>Bangor</i>
Blackwood, Harold Frank	<i>West Pembroke</i>
Blanchard, Charlotte Elizabeth	<i>Bangor</i>
Bless, Aaron, B.S. Temple, 1918; M.S., Maine, 1921	<i>Orono</i>
Boulanger, Joseph Oscar	<i>Madison</i>
Bowen, Howard Lancaster	<i>Bangor</i>
Boynton, Henry Stanwood	<i>Orono</i>
Brown, Chester Asbery	<i>Turner</i>
Bunker, Mary Carolyn	<i>Bangor</i>
Butler, Lois Belle	<i>Penobscot</i>
Cain, Florence Linda	<i>Clinton</i>
Callighan, Olin William	<i>Kalamazoo, Mich.</i>
Carlin, James Edward	<i>Bangor</i>
Carpenter, Guy Francis	<i>Manchester</i>
Carter, James Franklin, B.S. Bowdoin, 1917	<i>Mapleton</i>
Cary, Catharine	<i>Houlton</i>
Chase, Harold Jasper	<i>Freeport</i>
Chase, Marion Ina	<i>Old Town</i>
Chase, Willard Orin	<i>Old Town</i>
Chilcott, Theodore Eaton	<i>Bangor</i>
Clough, Raymon Whitney	<i>Portland</i>
Connelly, William James	<i>Pembroke</i>
Conti, Armando John, Jr.	<i>Eastport</i>
Coombs, Frank Montgomery	<i>Livermore Falls</i>
Coombs, Ruth Milton	<i>Bangor</i>

Couri, Dewey William  
 Covell, Arthur Eugene  
 Cowan, George Parker, B.C.E.  
 Maine, 1894

Creighton, John Turner  
 Crockett, Mark Vernon, B.A.  
 Maine, 1919

Cross, Donald Harvey  
 Crowe, Mary Frances  
 Curran, Raymond Joseph  
 Cutler, Fannie Rebecca  
 Daigle, Elizabeth Lucie  
 Davis, Alma Lovejoy  
 Dawson, Leo Henry, A.B.

Clark, 1912; A.M., 1914

Dempsey, Harold Norcross, B.S.  
 Colby, 1920

Dolliff, Ardis Eleta  
 Dolliver, Franz Richard  
 Dresser, Philip Maxson  
 Dunham, Lloyd Thomas  
 Dunton, John Albert  
 Durham, John Franklin  
 Eaton, Frank Newell, Jr.  
 Ells, Frank Brown  
 Erickson, Dagny Alvilde  
 Erskine, Paul Franklin  
 Estes, Margaret Julia, A.B.

St. Elizabeth, 1921

Fernald, Cornelia Rankin  
 Field, Madeline Hazel  
 Field, Vena Bernadette  
 Flowers, Frank Shuster  
 French, Arthur Willis, A.B.

Brown, 1907

French, Georgina Gould, A.B.  
 Bates, 1893

Fuller, Annie Myrtle  
 Gale, Abraham Nathan  
 Gallagher, William Conners  
 Getchell, Philip Eugene  
 Gillespie, Ina Evelyn  
 Goggin, Francis James, B.A.

Maine, 1921

Gordon, Franklin Harold

*Portland*  
*Hinckley*  
*Babylon, N. Y.*

*Thomaston*  
*Gorham, N. H.*

*Guilford*  
*Bangor*  
*Bangor*  
*Old Town*  
*Fort Kent Mills*  
*Bangor*  
*Orono*

*Stillwater*

*Jackson*  
*Bangor*  
*Cooper*  
*West Franklin*  
*Skowhegan*  
*Belfast*  
*Old Town*  
*Portland*  
*South Brewer*  
*Portland*  
*Bangor*

*Winterport*  
*Vanceboro*  
*Vanceboro*  
*Paulsboro, N. J.*  
*Bristol, Conn.*

*Livermore Falls*

*Pittsfield*  
*Dorchester, Mass.*  
*Bangor*  
*East Machias*  
*Meddybemps*  
*Orono*

*Bangor*

Greenlaw, Una Prudence	<i>Belfast</i>
Hamm, Carol May, B.A.	<i>Bangor</i>
Maine, 1921	
Hardy, John Alexander	<i>Whitestone, L. I., N. Y.</i>
Harrigan, Helen Davis	<i>Bangor</i>
Harriman, Richard Sherwood	<i>Rumford</i>
Harris, Bessie Margaret	<i>Eastport</i>
Hatch, Flora Nellie	<i>Bowdoinham</i>
Hatch, Katharine, B.A.	<i>Fairfield</i>
Colby, 1919	
Hatch, Warren William, B.S.	<i>Brooklyn, N. Y.</i>
Maine, 1911	
Hawkey, Harriet Luella	<i>Poughkeepsie, N. Y.</i>
Hefler, Frank Glassy	<i>Portland</i>
Hegarty, Richard Paul	<i>Portland</i>
Henry, Herman Everett	<i>Caribou</i>
Hersey, Lilla Clarke, B.A.	<i>Bangor</i>
Maine, 1921	
Hines, George Harold, B.A.	<i>Middletown, Conn.</i>
Wesleyan, 1918	
Hibbert, Harold, D.Sc., Ph.D.	<i>New Haven, Conn.</i>
Hiney, Elizabeth Catherine	<i>Hoboken, N. J.</i>
Hofsted, Eugene Albert, L.L.L.	<i>Rockville, Conn.</i>
Columbia, 1911	
Holt, George Augustus	<i>Beverly, Mass.</i>
Houghton, Amory McLellan, Jr.	<i>Bangor</i>
Hovey, Almon Guion	<i>Bridgeport, Conn.</i>
Huntley, Cecil Ivan	<i>Machias</i>
Idler, Irving Gibson	<i>Newark, N. J.</i>
Jarmon, Walter Herbert	<i>New York City</i>
Jeffery, Davis Mitchell	<i>Dorchester, Mass.</i>
Jellison, Arthur William	<i>Mt. Desert Ferry</i>
Johnston, Donald Percy	<i>Bangor</i>
Jorgenson, Anna Matilda	<i>Bangor</i>
Jowett, John Naylor	<i>Uxbridge, Mass.</i>
Judkins, Perry Wendel	<i>Upton</i>
Kellogg, Thelma Louise, B.A.	<i>Vanceboro</i>
Maine, 1918	
Kenney, Marion Marguerite	<i>Bangor</i>
Kiernan, John Henry, B.A.	<i>Wareham, Mass.</i>
Maine, 1917	
Kirk, Edward Benedict, B.A.	<i>Bar Harbor</i>
Maine, 1920	
Kumler, Ralph Waldo, A.B.	<i>Wilmington, Del.</i>
Whittenberg, 1913	

Landerkin, Charles Forest  
 Larkin, Sister M. Teresita, B.S.E.  
 St. Joseph's, 1919

Lee, Alice  
 Littlefield, Theodore  
 Lord, Leonard  
 Lord, Wilfred Henry  
 Lucas, Warren Stanhope, B.A.  
 Maine, 1914

Mahaney, Edna Hortense  
 Maling, Rachel Dorcas  
 Mansur, Everett Brown  
 March, Lindsay Jackson, B.A.  
 Maine, 1921

Marshall, Horace Carr  
 Martin, Preston Hussey, B.S.  
 Maine, 1914

Masson, Mary **Graham**  
 Mathieson, Donald Herbert  
 McCarthy, Lillian Clare  
 McCarthy, Minnie Elizabeth  
 McCobb, John Lombard  
 McCrystle, John Darwin  
 McConville, Sister Mary **Callista**,  
 B.S.E., St. Joseph's, 1919

McEwen, Charles Milton  
 McKay, John Angus  
 McQuaide, Thomas Wilson  
 Merrill, Gladys Helen, B.A.  
 Maine, 1915

Miller, Ira Lyman  
 Moody, Dwight Lyman  
 Moore, Alfred Shaw  
 Moulton, Arthur Lunt  
 Moulton, Fred Hartshorn  
 Mulvaney, Richard Francis  
 Nadeau, William Martin  
 Nevens, Cecilia Mary  
 Nickerson, Frederick Melvin  
 Nicoll, Berneice Ormiston  
 Noddin, Effie May, A.B.  
 Maine Wesleyan Seminary  
 Norell, Minnie Elvera  
 Oakes, Karl Rufus

*Gardiner*  
*Orono*

*Dover-Foxcroft*  
*Brewer*  
*Saco*  
*Winterport*  
*Orono*

*Bangor*  
*Bangor*  
*Bangor*  
*Old Town*

*Topsham*  
*Portland*

*Anacostia, D. C.*  
*Freedom*  
*Bangor*  
*Bangor*  
*Woodfords*  
*Berlin, N. H.*  
*Orono*

*Bowdoinham*  
*Portland*  
*Pittsfield*  
*Orono*

*Brewer*  
*Danforth*  
*Brooklyn, N. Y.*  
*Hartland*  
*North Jay*  
*Bangor*  
*Howland*  
*Old Town*  
*Frankfort*  
*Brunswick*  
*Auburn*

*Caribou*  
*Rangeley*



Oakes, Ralph Gilbraith, B.Ped. Maine, 1918	<i>Readfield Depot</i>
Orcutt, Carolyn Silsby	<i>Amherst</i>
Parent, Wilfred Leo	<i>Boston, Mass.</i>
Percival, Ethelyn Marcia	<i>Bangor</i>
Perkins, Lena Georgia	<i>Oxford</i>
Perkins, Perley Chesman	<i>Durham, N. H.</i>
Perry, Alton Church	<i>Randolph</i>
Perry, John Francis	<i>Bangor</i>
Peterson, Christian William, B.A. Maine, 1921	<i>Portland</i>
Pierson, Ellen Victoria	<i>New Sweden</i>
Plummer, Lester Lacy	<i>Harrington</i>
Plummer, Roland Sparrow	<i>Harrington</i>
Pooler, Leonard Lawrence	<i>Bangor</i>
Porter, Lawrence DeLeon	<i>Brewer</i>
Pratt, Laura Estelle	<i>Troy</i>
Preble, Charles Sylvester, A.B. Wesleyan, 1909	<i>South Brewer</i>
Purdy, Walter William, B.S. Akron, 1919	<i>Akron, Ohio</i>
Rackliff, Charles Elvin	<i>Old Town</i>
Rankin, Clark Colby, B.S., Bates	<i>Howland</i>
Reed, Lewis Hersey	<i>Springfield</i>
Reynolds, Lucile DeNevers	<i>Newport</i>
Richardson, Forrest Earle	<i>Bar Harbor</i>
Richardson, Harrison Lambert	<i>Orono</i>
Riley, Edwin Alden	<i>Livermore Falls</i>
Roberts, Philip Carroll	<i>Portland</i>
Robertson, Hugh	<i>E. Milton, Mass.</i>
Robinton, Frank	<i>Medford, Mass.</i>
Ross, Forrest John	<i>Columbia Falls</i>
Saunders, Lillian Anna	<i>Newport News, Va.</i>
Sawyer, Susan Davis	<i>Bangor</i>
Scammon, William Francis, B.A. Maine, 1908	<i>Orono</i>
Scott, Howard Earl	<i>Portland</i>
Serpas, Ralph Joseph	<i>Poydras, La.</i>
Simpson, William Andrew, B.S. Maine, 1917	<i>Marlboro, Mass.</i>
Small, Donald Wallace	<i>East Machias</i>
Small, Henry Dyer	<i>Charleston</i>
Small, Irving Wheelock	<i>Bar Harbor</i>
Smith, Oscar Samuel, B.A. Maine, 1913	<i>Patten</i>

Smith, Paul Ashton  
 Smith, Pauline Chambers  
 Southwick, William Raymond  
 Spinney, Clara Lillian  
 Stack, Frank Obrion  
 Stone, Frederick Clinton  
 Stowe, Frances Dillingham  
 Sullivan, Nellie Alice  
 Tanne, Earl  
 Taylor, Enid Dorothy  
 Thomas, Widgery  
 Thompson, Vera June  
 Thurlow, Myra Dunn  
 Todd, Walter Ernest  
 Townsend, Clarence Cobb, B.A.

Bates, 1914

Tuck, Alonzo Henry  
 Turner, O'Dillion Charles, B.A.

Maine, 1918

Tyler, Arnold Wesley  
 Violette, Augusta Genevieve, B.A.

Maine, 1921

Vose, John Peters  
 Waite, John Philip  
 Wass, Clifton Ennis  
 Waterman, Harold Frederick  
 Webb, Herbert Clark  
 Wetherell, James Henry  
 Whitcomb, Charles Floyd  
 Whitcomb, Morton Church  
 White, Blair Coburn  
 White, Helen Margaret  
 Whittemore, Earle Bennett  
 Wilbur, Dorothy Elizabeth  
 Wilde, Herman Emil  
 Wilkins, Elwood Kempton  
 Willett, Alfred Peter, B.A.

Maine, 1921

Wormcke, Henry Arthur  
 Wray, Ruth Arline, B.A.

Maine, 1920

Young, Agnes Mildred  
 Young, Newman Harold  
 Young, William Leroy  
 Zollo, Felice John

*Bangor*  
*Houlton*  
*Kezar Falls*  
*Bangor*  
*Portland*  
*Cornish*  
*Old Town*  
*Veazie*  
*Howland*  
*North Sullivan*  
*Portland*  
*Houlton*  
*Livermore Falls*  
*Buckland, Conn.*  
*Brownville*

*Mapleton*  
*Bangor*

*Augusta*  
*Milford*

*Bangor*  
*Bangor*  
*Newport*  
*Portland*  
*Bangor*  
*Gorham*  
*New Sharon*  
*Ellsworth*  
*Bangor*  
*Washington, D. C.*  
*Worcester, Mass.*  
*Sullivan*  
*Lawrence, Mass.*  
*Caribou*  
*Orono*

*New Haven, Conn.*  
*Brewer*

*East Surry*  
*Auburn*  
*Winterport*  
*Boston, Mass.*

## General Summary

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### FACULTY

Professors	37
Associate Professors	17
Assistant Professors	16
Instructors	40
Assistants	4
Lecturers	5
Agricultural Extension Service Staff	38
Agricultural Experiment Station Staff	19
Total	<hr/> 176
College of Agriculture	21
College of Arts and Sciences	52
College of Technology	31
Agricultural Extension Service Staff	38
Agricultural Experiment Station Staff	19
Officers common to all colleges	15
Total	<hr/> 176

### STUDENTS

	Total	Men	Women
Graduate students	29	22	7
Seniors	199	146	53
Juniors	254	184	70
Sophomores	280	232	48
Freshmen	466	370	96
Specials	50	38	12
Two Year School Course in Agriculture			
First Year	22		
Second Year	7		
	<hr/> 29	<hr/> 29	<hr/> 0
Summer Term	228	160	68
Total, omitting duplicates in Summer Term	<hr/> 1460	<hr/> 1125	<hr/> 335

## CLASSIFICATION BY COLLEGES

Graduate students	29
College of Agriculture	294
College of Arts and Sciences	605
College of Technology	532
	<hr/>

1460

## CANDIDATES FOR DEGREES

Graduate students	29
College of Agriculture	253
College of Arts and Sciences	459
College of Technology	515
	<hr/>

1256

## CLASSIFICATION BY RESIDENCE

## Maine, by counties :

Androscoggin	44
Aroostook	89
Cumberland	177
Franklin	34
Hancock	60
Kennebec	84
Knox	45
Lincoln	13
Oxford	44
Penobscot	384
Piscataquis	55
Sagadahoc	18
Somerset	40
Waldo	28
Washington	82
York	73

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Massachusetts	108
Connecticut	22
New Hampshire	20
New York	13
New Jersey	8
Vermont	4
District of Columbia	2

Pennsylvania	2
Delaware	1
Louisiana	1
Michigan	1
Rhode Island	1
Virginia	1
Wisconsin	1
Australia	1
Canada	1
China	1
Newfoundland	1
Philippine Islands	1
	<hr/>
Special Students in Education	1460
	148
	<hr/>
Total in the University	1608

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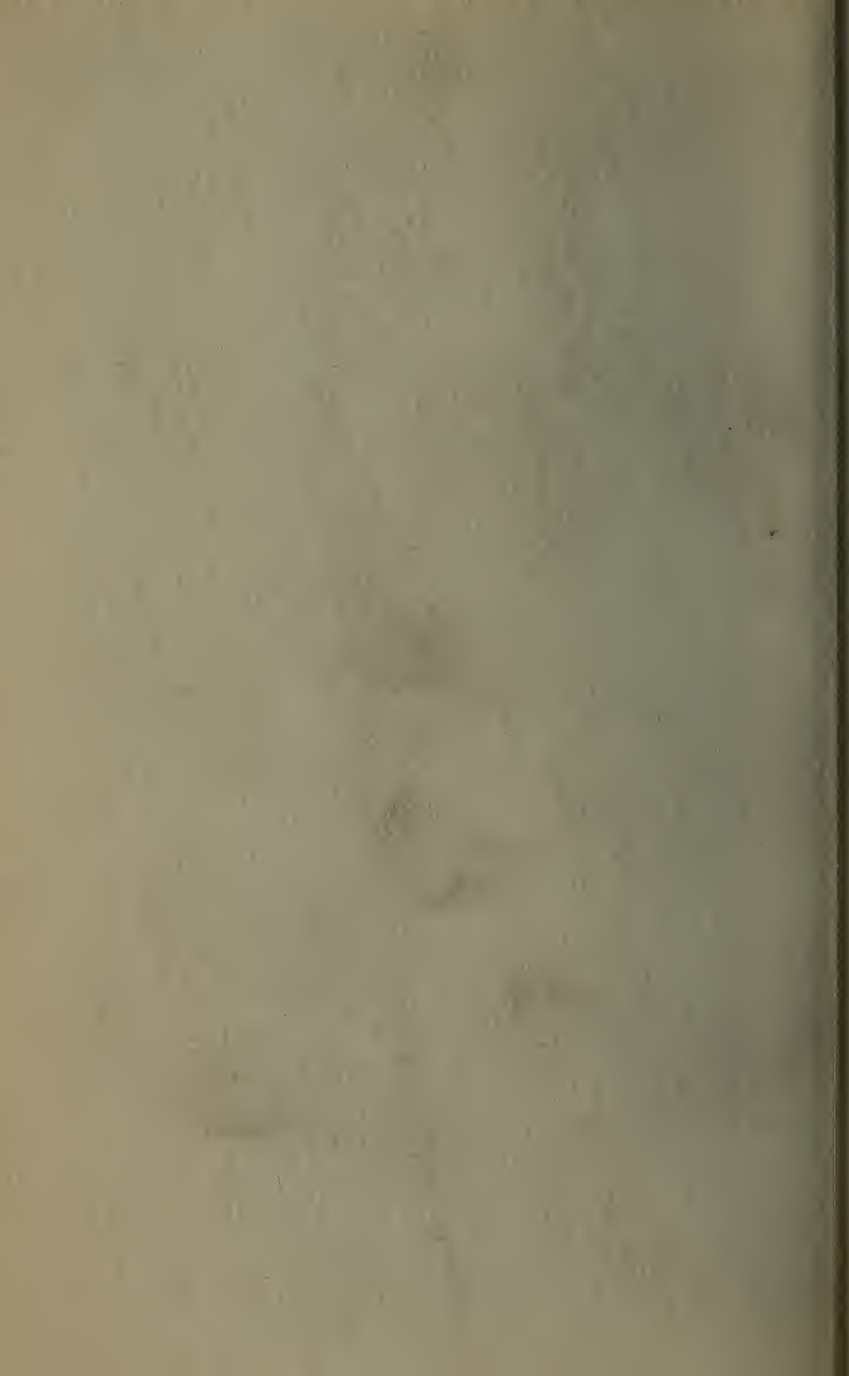
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1922/23

THE MAINE BULLETIN

VOL. XXV

DECEMBER, 1922

No. 4

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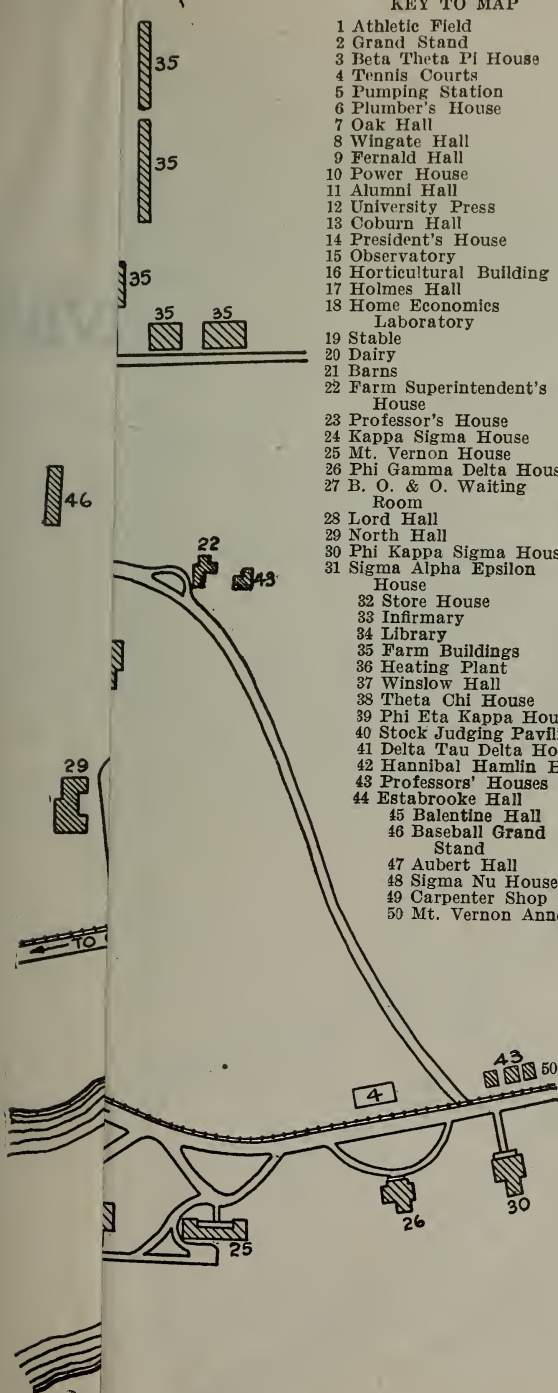
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# KEY TO MAP

- 1 Athletic Field
- 2 Grand Stand
- 3 Beta Theta Pi House
- 4 Tennis Courts
- 5 Pumping Station
- 6 Plumber's House
- 7 Oak Hall
- 8 Wingate Hall
- 9 Fernald Hall
- 10 Power House
- 11 Alumni Hall
- 12 University Press
- 13 Coburn Hall
- 14 President's House
- 15 Observatory
- 16 Horticultural Building
- 17 Holmes Hall
- 18 Home Economics Laboratory
- 19 Stable
- 20 Dairy
- 21 Barns
- 22 Farm Superintendent's House
- 23 Professor's House
- 24 Kappa Sigma House
- 25 Mt. Vernon House
- 26 Phi Gamma Delta House
- 27 B. O. & O. Waiting Room
- 28 Lord Hall
- 29 North Hall
- 30 Phi Kappa Sigma House
- 31 Sigma Alpha Epsilon House
- 32 Store House
- 33 Infirmary
- 34 Library
- 35 Farm Buildings
- 36 Heating Plant
- 37 Winslow Hall
- 38 Theta Chi House
- 39 Phi Eta Kappa House
- 40 Stock Judging Pavilion
- 41 Delta Tau Delta House
- 42 Hannibal Hamlin Hall
- 43 Professors' Houses
- 44 Estabrooke Hall
- 45 Balentine Hall
- 46 Baseball Grand Stand
- 47 Aubert Hall
- 48 Sigma Nu House
- 49 Carpenter Shop
- 50 Mt. Vernon Annex



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## JULY

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1923

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## DECEMBER

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1924

## JANUARY

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## FEBRUARY

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## APRIL

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## MAY

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## JUNE

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# Calendar

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## FALL SEMESTER, 1922

September 15-19, Arrearage and entrance examinations.  
September 19, Tuesday, Registration 8 A. M. to 5 P. M.  
September 20, Wednesday, Registration 8 A. M. to 5 P. M. First  
Chapel, 11 A. M.  
September 21, Thursday, Classes begin 8 A. M.  
November 30, Thursday, Thanksgiving Day, a holiday.  
December 19, Tuesday, Christmas Recess begins 5.05 P. M.

## 1923

January 2, Tuesday, Christmas Recess ends 8 A. M.  
January 26, Friday, Fall Semester ends 5.05 P. M.

## SPRING SEMESTER, 1923

January 27, Saturday, Registration 8 A. M. to 5 P. M.  
January 29, Monday, Spring Semester begins 8 A. M.  
February 22, Thursday, Washington's Birthday, a holiday.  
March 23, Friday, Spring Recess begins 5.05 P. M.  
April 2, Monday, Spring Recess ends 8 A. M.  
April 19, Thursday, Patriot's Day, a holiday.  
May 30, Wednesday, Memorial Day, a holiday.  
June 5-8, Entrance Examinations.  
June 9, Saturday, Alumni Day, Class Day.  
June 10, Sunday, Baccalaureate Address.  
June 11, Monday, Commencement, 9.30 A. M.

## FALL SEMESTER, 1923

September 18, Tuesday, Registration 8 A. M. to 5 P. M.  
September 19, Wednesday, Registration 8 A. M. to 5 P. M. First  
Chapel, 11 A. M.

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Term expires April 28, 1927	
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Term expires May 31, 1924	
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Term expires June 19, 1925	
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Term expires September 30, 1928	
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Term expires April 22, 1928	
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 ANIMAL INDUSTRY. Professor Corbett, 14 Winslow Hall, Campus  
 BACTERIOLOGY AND VETERINARY SCIENCE. Professor Russell, 13 Winslow  
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- PHYSICS. Professor Stevens, 200 Aubert Hall, 175 Main Street
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- PSYCHOLOGY. Professor Halverson, 23 Wingate Hall, 104 North Main Street
- PUBLIC SPEAKING. Associate Professor Bailey, 1 Estabrooke Hall, 39 Mill Street
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B.A., Toronto, 1894; Ph.D., Chicago, 1904

JOHN MANVERS BRISCOE, Professor of Forestry.

M.F., Yale, 1909

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\*Arranged in groups in order of seniority of appointment

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M.D., Bowdoin, 1889; Sc.D., Maine, 1922

GEORGE EDWARD SIMMONS, Professor of Agronomy.

B.S., Ohio Northern, 1902; M.S., 1905; B.Sc., Ohio State, 1909; D.Sc., Ohio Northern, 1922

WILLIAM EDWARD BARROWS, Jr., Professor of Electrical Engineering.

B.S., Maine, 1902; E.E., 1908

LAMERT SEYMOUR CORBETT, Professor of Animal Industry.

B.Sc., Massachusetts Agricultural College, 1909; M.S., Kentucky, 1913

FRANCES ROWLAND FREEMAN, Professor of Home Economics.

B.Sc., Ohio State, 1910; M.Sc., 1911

WILLIAM JORDAN SWEETSER, Professor of Mechanical Engineering.

S.B., Massachusetts Institute of Technology, 1901

ROY MERLE PETERSON, Professor of Spanish and Italian.

A.B., Coe College, 1906; A.M., Harvard, 1910; Ph.D., 1912; F.A.A.R.

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B.S., Maine, 1905; Ph.D., Pennsylvania, 1909

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A.B., Bowdoin, 1905

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B.A., Dartmouth, 1899; M.A., 1902 and Yale, 1910; Ph.D., 1912

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B.A., Emory and Henry College, 1906; Ph.D., Johns Hopkins, 1914

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Ph.B., Yale, 1906; Ph.D., 1912

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B.A., Maine, 1907; M.A., 1908 and Harvard, 1909; Ph.D., 1913

LUTHER RICE JAMES, Professor of Military Science and Tactics.

Major, United States Army

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B.S., Maine, 1910

RAYMOND LOWREY WALKLEY, Librarian.

B.A., Yale, 1909; M.A., 1910; B.L.S., New York State Library School, 1913

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B.M.E., Maine, 1899; B.S., 1902

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B.S., Dartmouth, 1900

ALBERT LEWIS FITCH, Professor of Physics.

A.B., Albion College, 1911; M.A., 1912; Ph.D., Michigan, 1916

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B.A., Lawrence College, 1910; M.A., Wisconsin, 1915
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B.S. in E.E., Norwich, 1912  
Captain of Infantry, U. S. Army
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First Lieutenant of Infantry, U. S. Army.
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Ph.B., Wisconsin, 1915; A.M., Iowa, 1918; Ph.D., Clark, 1922
- 
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E.E., Polytechnic Institute of Brooklyn, 1911
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C.E., Maine, 1913
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B.S., Maine, 1909; M.S., 1911; M.S., Massachusetts Institute of Technology, 1912
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A.B., Indiana, 1913; LL.B., 1914; A.M., 1916
- FRANÇOIS JOSEPH KUENY, Associate Professor of French.  
B. ès L., University of Paris, 1897; L. ès L., Besançon, 1901
- CHARLES HOWARD BATCHELDER, Associate Professor of Biology.  
A.B., New Hampshire State College, 1913; M.S., 1915
- MARK BAILEY, Associate Professor of Public Speaking.  
A.B., Yale, 1915; A.M., Michigan, 1917
- HOWARD WATSON FLACK, Associate Professor of Physical Education.  
A.B., Syracuse, 1914
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Ph.B., Colby, 1901; B.S., Massachusetts Institute of Technology, 1905
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B.S., Maine, 1915; C.E., 1918; M.S., Maine, 1921

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B.A., Columbia, 1911; M.A., 1913
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B.S., Maine, 1906; M.A., 1917
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Ph.B., Yale, 1884; Ph.D., Heidelberg, 1897
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B.A., New York University, 1914; M.A., 1915; M.A., Harvard, 1918;  
Ph.D., 1920
- NOAH ROSENBERGER BRYAN, Associate Professor of Mathematics.  
A.B., Pennsylvania State, 1913; A.M., Pennsylvania, 1918; Ph.D.,  
Columbia, 1921
- 
- HARRY WOODBURY SMITH, Assistant Professor of Biological and Agricultural Chemistry.  
B.S., Maine, 1909; M.S., 1922
- ADELBERT WELLS SPRAGUE, Director of Music.  
B.S., Maine, 1905; A.M., Harvard, 1907
- LLEWELLYN MORSE DORSEY, Assistant Professor of Animal Industry.  
B.S., Maine, 1916
- BENJAMIN COE HELMICK, Assistant Professor of Agronomy.  
B.S., Iowa, 1914; M.S., Cornell, 1915
- ESTHER MCGINNIS, Assistant Professor of Home Economics.  
B.Sc., Ohio State, 1915
- WALTER DAVIS EMERSON, Assistant Professor of Mechanical Engineering.  
B.S., Maine, 1916; M.E., 1920
- LEO HENRY DAWSON, Assistant Professor of Physics.  
A.B., Clark College, 1912; A.M., Clark University, 1914
- RUFUS WILLIAM McCULLOCH, Assistant Professor of English.  
A.B., North Carolina, 1906; A.M., 1911 and Harvard, 1913
- INEZ BOWLER, Assistant Librarian.  
A.B., Colby, 1907; B.S., Simmons, 1910
- BERTHA JOSEPHINE HOWARD, Assistant Professor of Economics and Sociology.  
B. A., Mount Holyoke, 1910; M.A., University of Michigan, 1917
- JOHN HENRY KIDNEY, Assistant Professor of Military Science and Tactics.  
Warrant Officer, U. S. Army.



- WALTER JOSEPH CREAMER, Assistant Professor of Electrical Engineering.  
B.S., Maine, 1918; E.E., Maine, 1921
- PLATT ASHLEY PEARSALL, Assistant Professor of Chemistry.  
B.S., Virginia Polytechnic Institute, 1915
- LOUISE BANCROFT, Assistant Professor of Home Economics.  
B.S., Simmons, 1920
- ALBERT MORTON BIERSTADT, Assistant Professor of English.  
A.B., Harvard, 1912; A.M., 1914; Ph.D., 1920
- ELMER REEVE HITCHNER, Assistant Professor of Bacteriology.  
B.S., Pennsylvania State, 1915; M.S., 1916
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of Freshmen.
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B.A., New York University, 1918; M.A., 1920
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- MARION STEPHANIE BUZZELL, Instructor in French.  
B.A., Maine, 1914; M.A., 1916
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B.S., Maine, 1914; M.S., 1921
- FRANCES ELIZABETH ARNOLD, Instructor in Spanish and Italian.  
B.A., Maine, 1910
- AARON BLESS, Instructor in Physics.  
B.S., Temple University, 1918; M.A., Maine, 1921
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A.B., Texas, 1916; A.M., 1918
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B.S., McGill, 1915
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B.S., Maine, 1918
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B.S., Maine, 1920
- SHERMAN JEWETT GOULD, Instructor in Physics.  
B.S., Bates, 1916
- WARREN STANHOPE LUCAS, Instructor in Mathematics.  
B.A., Maine, 1914; M.A., 1922
- HARRY ROY PERKINS, Instructor in Mechanical Engineering.

- JOHN ANTHONY STRAUSBAUGH, Instructor in Spanish and Italian.  
A.B., Dickinson, 1919
- HAROLD CLAYTON SWIFT, Instructor in Agronomy.  
B.S., Maine, 1918
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B.S., Maine, 1920
- CHARLES FLOYD WHITCOMB, Instructor in French.
- HAROLD CHANDLER WHITE, Instructor in Chemistry.  
B.S., Maine, 1915; C.E., Maine, 1921
- MARK BRADEN ASHLEY, Instructor in Military Science and Tactics.  
Sergeant, U. S. Army.
- FRANK SWAN BEALE, Instructor in Mathematics.  
B.S., Maine, 1921
- MARION KATHARYN BRAGG, Instructor in English.  
B.A., Maine, 1921
- EDWARD CHOATE BROWN, Instructor in Mathematics.  
A.B., Harvard, 1918
- HOWARD LLOYD FLEWELLING, Instructor in English.  
B.A., Dartmouth, 1921
- THELMA LOUISE KELLOGG, Instructor in English.  
B.A., Maine, 1918
- WARREN EDWARD LORING, Instructor in Mathematics.  
B.S., Tufts, 1918
- WALTER WILLIAM PURDY, Instructor in Chemistry.  
B.S., Akron, 1919
- EVERETT LOUIS ROBERTS, Instructor in Electrical Engineering.  
B.S., Maine, 1920
- GEORGE MERVIL SEELEY, Instructor in Chemistry.  
A.B., Bates, 1913
- WALTER WENTWORTH WIGGIN, Instructor in Horticulture.  
B.S., New Hampshire State, 1921
- IRVING TREFETHEN RICHARDS, Instructor in English.  
A.B., Bowdoin, 1920
- WALTER WHITMORE CHADBOURNE, Instructor in Economics and Sociology.  
A.B., Maine, 1920; M.B.A., Harvard, 1922
- RICHARD EUGENE DOWNING, Instructor in Electrical Engineering.  
S.B., Massachusetts Institute of Technology, 1922
- EDWIN DILLMON HULL, Instructor in Biology.  
B.S., Chicago, 1914; M.S., Chicago, 1916
- LESLIE GEORGE JENNESS, Instructor in Mathematics.  
B.S., New Hampshire State, 1920

- FRED EUGENE JEWETT, Instructor in Economics and Sociology.  
B.S., Middlebury, 1921
- ALBERT EDWIN JOHNSON, Instructor in Engineering Drawing.  
B.S., Maine, 1922
- EDWIN JAY LYONS, Instructor in Military Science and Tactics.  
Sergeant, U. S. Army.
- KENNETH GERALD MERRIAM, Instructor in Mechanical Engineering.  
S.B., Massachusetts Institute of Technology, 1922
- FLORENCE JULIA MORRILL, Instructor in Home Economics.  
B.S., Maine, 1921
- FLOYD FRANCIS OPLINGER, Instructor in Chemistry.  
B.S., Franklin and Marshall, 1919; M.S., Rochester, 1922
- FRANCIS DOOLITTLE WALLACE, Instructor in Public Speaking.  
A.B., Cornell, 1921
- RALPH ALLEN WILKINS, Instructor in Chemistry.  
B.S., Maine, 1919
- NORMAN EMME WOLDMAN, Instructor in Chemistry.  
B.S., Case School of Applied Science, 1921; M.S., Ohio State, 1922
- HELEN WOODBRIDGE, Instructor in Biology.  
B.A., Mount Holyoke, 1920; M.S., Washington, 1922
- TERESA HUESMAN, Instructor in Physical Training for Women.
- 
- MADELINE MOORE, Assistant in the Library.
- HERBERT BURR ABBOTT, Mechanician in the Mechanical Engineering  
Department.
- DAVID GROSS, Assistant in Spanish.
- LEO DAY, Assistant in State Highway Laboratory.

## Faculty of Extension Service

(COLLEGE OF AGRICULTURE)

LEON STEPHEN MERRILL, Director.

M.D., Bowdoin, 1889; D.Sc., Maine, 1922

RAYMON NEALE ATHERTON, County Agricultural Agent, Androscoggin and Sagadahoc Counties.

B.S., Maine, 1920

IVA VIOLA BARKER, Home Demonstration Agent, Penobscot County.

B.S., Maine, 1921

HARRY ELMER BICKFORD, County Agricultural Agent, Hancock County.

EDNA MANSFIELD COBB, Clothing Specialist.

HELEN LOUISE CLARK, Home Demonstration Agent, Kennebec County.

B.S., Connecticut State, 1919

HELEN PACKARD COOPER, Home Demonstration Agent, Androscoggin and Sagadahoc Counties.

CHARLES EDWARD CROSSLAND, Executive Secretary to Director of Extension Service.

B.S., Maine, 1917

ABRAHAM LINCOLN TASKER CUMMINGS, Agricultural Editor.

CLARENCE ALBERT DAY, County Agricultural Agent, Kennebec County.

ARTHUR LOWELL DEERING, County Agent Leader.

B.S., Maine, 1912

RICHARD BOULSBY DODGE, County Agricultural Agent, Penobscot County.

B.S., Maine, 1917

NORMAN SYLVESTER DONAHUE, County Agricultural Agent, Waldo County.

B.S., Maine, 1915

MARY GILMORE FLINT, Home Demonstration Agent, Washington County.

B.S., Columbia, 1920

ALBERT KINSMAN GARDNER, Crops Specialist.

B.S., Maine, 1910

WILLIAM MELVIN GRAY, County Agricultural Agent, York County.

B.S., Maine, 1912

MARION GRACE HARE, Home Demonstration Agent, Somerset County.

CLAIRE HERRICK, Home Demonstration Agent, Knox-Lincoln Counties.

B.S., Simmons, 1921

FLORA ADELAIDE HOWARD, Home Demonstration Agent, Piscataquis County.

B.S., Maine, 1917

ALICE EVELYN HOWE, Home Demonstration Agent, Hancock County.

- DELLA MAY INGERSON, Home Demonstration Agent, Cumberland County.  
MARY ELEANOR JACKSON, Home Economics Extension Specialist.  
B.S., Maine, 1920
- ROSALIND MAY JEWETT, Home Demonstration Agent Leader.  
B.S., Colby, 1910
- MAURICE DANIEL JONES, Farm Management Demonstrator.  
B.S., Maine, 1912
- CHARLES CARLYLE LARRABEE, County Agricultural Agent, Piscataquis County.
- RAYMOND HARWOOD LOVEJOY, County Agricultural Agent, Oxford County.  
B.S., Maine, 1921
- EDWARD WATTS MORTON, County Agricultural Agent, Aroostook County.  
B.S., Maine, 1909
- ARRA SUTTON MIXTER, Assistant State Club Leader.
- ESTELLE NASON, Home Demonstration Agent, Waldo County.  
B.S., Maine, 1922
- ANITA NICHOLSON, Home Demonstration Agent, Oxford County.
- JOHN HARVEY PHILBRICK, Assistant County Agricultural Agent, Aroostook County.  
B.S., Maine, 1915
- JAMES HAYES PULSIFER, County Agricultural Agent, Franklin County.
- DONALD WINSLOW REED, County Agricultural Agent, Washington County.  
B.S., Maine, 1922
- WILFRED SHERMAN ROWE, County Agricultural Agent, Cumberland County.
- LESTER HALE SHIBLES, State Club Leader.  
A.B., Colby, 1915
- HELEN SPAULDING, Home Demonstration Agent, York County.  
B.S., Simmons, 1913
- CLAYTON ALTON STORER, County Agricultural Agent, Somerset County.  
B.S., Maine, 1918
- MARJORIE PRINCE SYMONDS, Home Demonstration Agent, Franklin County.
- RICHARD FOSTER TALBOT, Specialist in Dairy Husbandry.  
B.S., Maine, 1907
- RALPH CARLTON WENTWORTH, County Agricultural Agent, Knox and Lincoln Counties.  
B.S., Maine, 1918
- OSCAR MILTON WILBUR, Specialist in Poultry Husbandry.  
M.S., Maine, 1917

## Faculty of Investigation

(THE MAINE AGRICULTURAL EXPERIMENT STATION)

- WARNER JACKSON MORSE, Director and Plant Pathologist.  
B.S., Vermont, 1898; M.S., 1903; Ph.D., Wisconsin, 1912
- ALICE WOODS AVERILL, Laboratory Assistant.
- JAMES MONROE BARTLETT, Chemist.  
B.S., Maine, 1880; M.S., 1883
- MILDRED REBECCA COVELL, Clerk in Biology.
- PERLEY DOWNING, Superintendent of Aroostook Farm.
- DONALD FOLSOM, Associate Plant Pathologist.  
A.B., Nebraska, 1912; A.M., Minnesota, 1914; Ph.D., 1917
- MARJORIE EUNICE GOOCH, Scientific Aid.  
B.S., Maine, 1919; M.S., 1922
- JOHN WHITTEMORE GOWEN, Biologist.  
B.S., Maine, 1914; M.S., 1915; Ph.D., Columbia, 1917
- CHARLES CLYDE INMAN, Clerk.
- VIOLA LOUISE MORRIS, Seed Analyst.
- MARY LEONICE NORTON, Clerk.
- EDITH MARION PATCH, Entomologist.  
B.S., Minnesota, 1901; M.S., Maine, 1910; Ph.D., Cornell, 1911
- KARL SAX, Biologist.  
B.S., Washington State, 1916; M.S., Harvard, 1917; Sc.D., 1922
- WELLINGTON SINCLAIR, Superintendent of Highmoor Farm.
- ELMER ROBERT TOBEY, Associate Chemist.  
B.S., Maine, 1911; M.S., 1917; Ch.E., 1920
- BEATRICE GOODINE WEBSTER, Laboratory Assistant.
- CHARLES HARRY WHITE, Assistant Chemist.  
Ph.C., Maine, 1897
- ILA KATHLEEN WHITE, Clerk.



## Committees of the Faculty

- ADMINISTRATION—The President and the Deans
- ALUMNI RELATIONS—Gannett, Emerson, Hart, Towner
- ATHLETICS—Grover, Halverson, Lyon, Pollard, Sprague, E. H.
- AUDITING—Merrill, L. H., Helmick, Kueny
- CHAPEL—Ellis, Buzzell, Cummings, Peterson, Sprague
- GRADUATE STUDY—Chase, Brautlecht, Colvin, Corbett, Ellis, Merrill, L. H.,  
Morse, Peterson, Willard
- HEALTH—Chrysler, Freeman, James, Russell
- HONORS—Sweetser, H. P., Carrington, Draper, Kent, Merrill, J. L.
- LIBRARY—Walkley, Ashworth, Draper, Huddilston, Segall, Simmons,  
Weston
- MILITARY—James, Boardman, Dorsey, Wallace, S.
- PUBLICITY—Gannett, Cummings, Towner
- RULES—Peterson, Fitch, Smith
- SCHEDULE—Weston, Gannett, the Deans
- SECONDARY-SCHOOL RELATIONS—Hart, Chase, Ellis, Freeman, Hill, H. S.,  
Pollard
- SOCIAL AFFAIRS—Toelle, Buzzell, Carrington, Huesman, Sweetser, H. P.,  
Towner, Wallace, S.
- STUDENT ACTIVITIES—(NON-ATHLETIC)—Sweetser, W. J., Bailey, Colvin,  
Ellis, Huesman, Pollard, Sprague, A. W., Towner, Walkley, Wallace,  
S., Weston

## General Information

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### HISTORY

The University of Maine is a part of the public educational system of the State. It was established as a result of the Morrill Act approved by President Lincoln, July 2, 1862. The State of Maine accepted the conditions of this act in 1863. In 1865 the State created a corporation to administer the affairs of the college. The original name of the institution was the State College of Agriculture and the Mechanic Arts. The name was changed to the University of Maine in 1897.

The first Board of Trustees was composed of 16 members, each county delegation in the Legislature selecting one member. Various changes have occurred in the appointment of Board members. At the present time seven members of the Board are appointed by the Governor of the State, with the advice and consent of the Council, for a term of seven years. One member is appointed for three years by the Governor upon the nomination of the Alumni Association.

The institution opened September 21, 1868, with a class of 12 members and a faculty of two teachers. By 1871 four curricula had been arranged,—Agriculture, Civil Engineering, Mechanical Engineering, and Elective. By gradual growth these curricula developed into the College of Agriculture, the College of Technology, and the College of Arts and Sciences.

The Maine Agricultural Experiment Station was established as a division of the university by act of the Legislature of 1887, as a result of the passage by Congress of the Hatch Act. It succeeded the Maine Fertilizer Control and Agricultural Experiment Station which had been established in 1885.

The College of Law was opened in 1898. It was an integral part of the institution and until the year 1917 occupied quarters at the corner of Union and Second streets in Bangor. Since that time it has been located on the campus at Orono. It was abolished in 1920.

Graduate instruction has been given by various departments for many years. The first Master's degree was conferred in 1881. There is no provision for graduate work in advance of that required for the Master's degrees.

Beginning with 1902, a Summer Term has been held annually, consisting at first of five weeks, but now of six. It is designed for teachers in secondary schools and for college students who desire to take advantage of its opportunities, and it also gives some courses for those who

seek an opportunity to make up entrance credits. The departments usually offering courses are Biology, Chemistry, Economics and Sociology, Education, English, French, German, History, Latin, Mathematics and Astronomy, Physics, and Spanish.

The university is coeducational, women having been admitted since 1872, in compliance with special legal enactment.

## LOCATION

The university is located in Orono, an attractive town of 3,500 population, with good schools and three churches. The campus of 370 acres borders the Stillwater River, a branch of the Penobscot, and is of great beauty.

Orono is on the main line of the Maine Central Railroad, eight miles east of Bangor, half way between Kittery, the most southerly town in the State on the Maine Central Railroad, and Fort Kent, the most northerly town in the State on the Bangor and Aroostook Railroad. It is not far from the center of population of the State. In addition to steam railroad connection, there is half-hour trolley service to Bangor, nine miles, and Old Town, three miles from the campus. Bangor is the third city of the State in population and an important business center. The location of the university gives students who care to do so an opportunity to avail themselves of its social, religious, and other advantages. Old Town is a prosperous manufacturing city with about 7,000 inhabitants.

## BUILDINGS AND THEIR EQUIPMENT

**BALENTINE HALL.**—The Legislature of 1913 made an appropriation for the erection of one wing of a women's dormitory. This was completed September 1, 1914. The Legislature of 1915 made an appropriation for completing the building. The name was given in honor of Elizabeth Abbott Balentine, Secretary and Registrar of the university from 1895 to 1913. It contains accommodations for 110 women.

**HANNIBAL HAMLIN HALL.**—This is a men's dormitory completed in 1911. It contains four stories and a concrete basement. It was named for the Honorable Hannibal Hamlin, of Hampden and Bangor, the first president of the Board of Trustees. It will accommodate 156 students.

**MOUNT VERNON HOUSE.**—This is a wooden building, remodeled in 1898, and is a dormitory for women. It is a three story building and will accommodate 36 students.

**NORTH HALL.**—This building is used by the Home Economics Department for a Practice House as required under the Smith-Hughes law for teacher training. It is a two story frame house located on the cam-

pus. The faculty and seniors of the department reside here during the academic year.

**OAK HALL.**—This building was named for the Honorable Lyndon Oak, of Garland, a long-time member and president of the Board of Trustees. It is a four story building, erected in 1871, and has 48 rooms for students.

**UNIVERSITY INN.**—This is a wooden building, located in the village of Orono, which the university has leased for a term of years. It is occupied chiefly by instructors and has accommodations for fifty persons.

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**ALUMNI HALL.**—This building was erected in 1900 and was given its name because part of the funds required for its erection were subscribed by the alumni of the university. It contains the gymnasium, chapel, and administrative offices.

**AUBERT HALL.**—This is a four story building including a high basement. It was named in honor of the late Alfred Bellamy Aubert, Professor of Chemistry from 1874 to 1910. It is used by the Departments of Chemistry and Physics.

**COBURN HALL.**—This building contains the Department of Biology and the museum and has recitation rooms for the Departments of History and Economics and Sociology. It was named for ex-Governor Abner Coburn, of Skowhegan, a former president of the Board of Trustees, and benefactor of the university.

**ESTABROOKE HALL.**—This building is used for the Departments of English and Public Speaking, and was named for the late Horace Melvyn Estabrooke, Professor of English from 1891 to 1908. It contains four recitation rooms, rooms for consultation purposes, and offices for the members of the departments.

**FERNALD HALL.**—This is the oldest building on the campus and was erected for the Department of Chemistry. It now contains the Departments of French, Spanish and Italian, Education, Mathematics, and the University Store. It was named in honor of ex-President Merritt C. Fernald.

**HOLMES HALL.**—This building contains the offices and laboratories of the Maine Agricultural Experiment Station. It is a two story building in addition to a basement. It was named for Dr. Ezekiel Holmes, of Winthrop.

**LIBRARY BUILDING.**—The Library Building is of stone, two stories above a basement, and surmounted by a dome. For its erection and furnishing, Mr. Andrew Carnegie gave \$55,000, and the Hallowell Granite Works furnished the granite at a price that was equivalent to a gift

of several thousand dollars. The stacks, which are in the rear of the main building, contain shelf room for 60,000 volumes.

**LORD HALL.**—This building was erected for the Departments of Electrical Engineering and Mechanical Engineering. It is two stories in height and contains recitation rooms, laboratories, shops, drawing rooms, and offices for the members of these departments. It was named for the Honorable Henry Lord, of Bangor, a former president of the Board of Trustees.

**STEWART HALL.**—This building is situated in Bangor and contains offices and recitation rooms of the College of Law. It is three stories in height and was named for Honorable D. D. Stewart, of St. Albans, Maine, who has been a generous benefactor of this college.

**WINGATE HALL.**—This building contains three stories and a basement. It is used by the Departments of Civil Engineering and Mechanics and Drawing, and includes recitation rooms and offices for the Departments of Latin, Psychology, and Music.

**WINSLOW HALL.**—This is a four story building including the basement. It contains offices, laboratories, and recitation rooms for the various departments of the College of Agriculture. It was named in honor of Honorable Edward B. Winslow, of Portland, a former president of the Board of Trustees. In the rear of this building is located the stock judging pavilion, which is an octagonal structure, having a seating capacity of 600.

**DAIRY BUILDING.**—This building contains various rooms appropriate for the Department of Dairy Husbandry. It is supplied with necessary appliances for teaching methods of handling milk, cream, butter, and cheese.

**FARM BUILDINGS.**—These comprise two large dairy barns, a horse barn, a hay storage barn, two tool houses, and a piggery. The farm of the university is composed of parcels of land aggregating 473 acres, of which 120 acres are under cultivation.

**HORTICULTURAL BUILDING.**—This includes a set of greenhouses east of Holmes Hall and furnishes opportunity for demonstration of the practical culture of flowers and vegetables under glass.

**INFIRMARY.**—This building is used in caring for cases of infectious diseases that may appear among the students. It is located in the rear of Hannibal Hamlin Hall.

**OBSERVATORY.**—The astronomical observatory stands on a slight elevation east of Alumni Hall. It contains equipment for work in descriptive and practical astronomy.

**POULTRY PLANT.**—The part of the plant that belongs to the College of Agriculture consists of a two and one-half story building to which



are attached brooder houses. The plant which belongs to the Agricultural Experiment Station contains an incubator house with tenement above, two poultry houses, a two story house, a building containing a hospital for hens, and rooms for digestion experiments.

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**ATHLETIC FIELD.**—Alumni Field, so called because funds required for its construction were contributed by the Alumni Association, is located at the northern end of the campus. It contains a quarter-mile cinder track, with a 220-yard straightaway, and is graded and laid out for football, baseball, and track and field athletics. It contains a grandstand with a seating capacity of 2,100. There is also an out-door board running track 390 feet long by 12 feet wide.

**CENTRAL HEATING PLANT.**—The Central Heating Plant is located on low ground so that the buildings drain by gravity to the plant. It contains five 150 h. p. boilers, two Worthington duplex return pumps, and scales for weighing coal.

**FRATERNITY HOUSES.**—The local chapters of Beta Theta Pi, Delta Tau Delta, Kappa Sigma, Phi Gamma Delta, Phi Kappa Sigma, Sigma Alpha Epsilon, Theta Chi, Sigma Nu, and the Phi Eta Kappa Society have houses on the campus. The local chapters of Lambda Chi Alpha, Phi Epsilon Pi, and Sigma Phi Sigma own houses adjoining the campus on College Road. The local chapters of Alpha Tau Omega and Sigma Chi own houses on North Main Street. These houses accommodate from 25 to 50 students each.

**PRINT SHOP.**—The University Press is located in a wooden building north of Aubert Hall. It contains a modern outfit for the printing required by the university.

**OTHER BUILDINGS.**—In addition to the buildings already described, there are several others devoted to various purposes. Among these are the President's house and five residences occupied by members of the faculty.

## THE LIBRARIES

The university libraries contain (June 30, 1922) over 70,000 books and bound periodicals, and over 21,000 pamphlets. The fields of agriculture, mathematics, physics, chemistry, and technology are strongly represented by sets of scientific journals and reports, as well as by the current publications which have been added by purchase. Other fields have excellent working collections for undergraduates, built up mainly by the efforts of heads of departments, and there are many long sets of general periodicals.



The university library is a designated depository for United States government documents, and its general collection has been strengthened by donations and deposits as follows: over 1000 mathematical and educational books given by Ex-President Aley; over 500 volumes of English literature and philology from the library of the late Professor H. M. Estabrooke; and the valuable horticultural library bequeathed by the late Professor W. M. Munson.

The departments of physics, education, and English, and the College of Agriculture have good reference working collections which have been withdrawn for their use from the university library. This does not, however, prevent their recall for general use.

The Agricultural Experiment Station library of about 4800 volumes is shelved with the general library, and is available for consultation, but not for general circulation, except with the director's permission. It contains many valuable sets of scientific journals, the current numbers being on file in Holmes Hall.

A large part of the Law Library collection of over 550 volumes is on deposit in the Court House in Bangor. These are available for use by the University when needed.

About 325 periodicals are subscribed for by the university library, in addition to about 75 taken at the Experiment Station, and over 150 others are received as gifts. Of the total number, over half are of a scientific nature, including technological and agricultural journals. The daily and weekly newspapers are in a reading room in the basement of the library building, and the current numbers of the technical engineering journals are available for general use in Wingate Hall.

The reading and seminar rooms of the library building will seat about 150 students, and access to the shelves is entirely unrestricted. The books are classified by the Dewey decimal system, and the main card catalog indexes all volumes by author, subject, and title. There is a special card catalog in the agricultural seminar room which indexes all papers and articles in the publications of the United States Department of Agriculture and the Agricultural Experiment Stations of the various states.

The library building is open daily during the academic year from 8.00 a. m. to 5.30 p. m. and from 7.00 to 9.00 p. m. on Monday, Tuesday, Wednesday, and Thursday. Hours on other days are: Friday, 8.00 a. m. to 5.30 p. m.; Saturday, 8.00 a. m. to 12 noon; Sunday, 2.30 to 4.30 p. m.; holidays, 8.00 a. m. to 12 noon.

Students may borrow three volumes at a time from the general library, to be retained three weeks; if more are desired or if need exists to retain them for a longer period, application should be made to the Librarian. A fine of two cents a day is collected for overdue books. Reference books do not circulate and special regulations are made for books reserved at the request of instructors. Unbound periodicals may be borrowed over night upon application to the desk assistant. Members

of the faculty may borrow any reasonable number of volumes without time limit, but all books must be returned nine days before Commencement. Books will be loaned to other libraries, to schools, and to residents of the State when it can be done without interference with local needs, the borrower paying transportation charges in both directions.

## MUSEUM OF NATURAL HISTORY

MINTIN ASBURY CHRYSLER

*Curator of the Botanical and Zoological Collections*

LUCIUS HERBERT MERRILL

*Curator of the Geological Collections*

The museum occupies the wing of Coburn Hall and adjoining rooms in the main part of the building.

**ZOOLOGICAL COLLECTIONS.**—These collections occupy the lower floor of the wing of Coburn Hall. Some of the alcoholic and formalin material is placed in wall cases in the biological laboratories. The collections consist of a number of the larger mammals of the State; a small set of exotic mammals; a more complete working collection of native birds, birds' nests, and eggs; an illustrative collection of the other groups of vertebrates; a rather large collection of the shells of native and exotic molluscs; and illustrative collections of the other groups, dry, alcoholic and prepared as microscopic objects.

**BOTANICAL COLLECTIONS.**—These collections are situated in rooms on the second and third floors. The herbarium includes several collections of considerable value, the most important of which is the one made by the late Rev. Joseph Blake and presented to the university by Mr. Jonathan G. Clark, of Bangor. It contains more than 7,000 species of both flowering and flowerless plants, and represents more especially the flora of Maine and other New England States, but includes many forms from the Western United States, Mexico, and the West Indies, and a number from many of the European and Asiatic countries, and from Africa and Australia. The late Professor F. L. Harvey left to the herbarium the general collections accumulated during his connection with the university, and his special collection of the weeds and forage plants of Maine, comprising 300 species. Other important collections are Collins's Algae of the Maine Coast, Halsted's Lichens of New England, Halsted's Weeds, Ellis and Everhart's North American Fungi, Cook's Illustrative Fungi, Underwood's Hepaticae, Cummings and Seymour's North American Lichens, and a collection of economic seeds prepared by the United States Department of Agriculture.

Collections other than the herbarium include exhibits illustrating the manufacture of paper and cocoa, the wood and bark features of the timber trees of Maine, conifers mounted in jars, plants used in pharmacy, commercial fibres, and artificial silk. A valuable collection of fossil plants was presented by Professor Harvey.

**GEOLOGICAL COLLECTIONS.**—These collections, occupying the upper floor of Coburn Hall, are accessible daily during the college year, except on Saturdays and Sundays. They include the more important fragmental, crystalline, and volcanic rocks; a collection of building stones; a series designed to illustrate the rocks of the State; a general collection of the more common minerals; a collection of economic minerals furnished by the United States National Museum; an educational series of rocks furnished by the United States Geological Survey; and a small collection of plant and animal fossils.

The part of the museum illustrating the mineral resources of the State may be made of great value, both from the scientific and economic standpoint. Students and others residing in the State are urged to contribute specimens from their home localities.

## ART COLLECTION

This collection consists of photographs, prints, engravings, polychrome reproductions, and plaster casts. Many of the large reproductions are framed and the entire collection has found a fitting home in the Library building, the gallery of which is well adapted to the exhibition of many of the plaster-cast reliefs and the larger framed works. The collection is distributed on the first and second floors, in the lecture room, and a seminar room. In the latter is a specially constructed cabinet for mounted photographs.

The entire collection numbers upwards of 4,000 reproductions of various sorts covering the fields of Classical and Renaissance architecture, sculpture, and painting. The illustrations for the Greek, Florentine, and Venetian schools are particularly representative. For much of the most important work the photographs are supplemented by lantern slides.

The university possesses many of the famous polychrome prints published by the Arundel Society. These and many other colored reproductions covering nearly all the great masters of Italian painting have been framed; and in the case of the *Madonna della sedia* and the *Sistine Madonna* the reproductions were imported in the frames, which are stucco copies of the originals in Dresden and Florence.

The lecture room in the Library building contains examples of the work of the chief Florentine and Umbrian masters of the 14th and 15th centuries, arranged on the walls in historical sequence. The gallery of the second floor is devoted to masters of the High Renaissance.

For the study of Greek and Roman antiquity the university possesses a large collection of photographs and lantern slides.

## ORGANIZATIONS

**AGRICULTURAL CLUB.**—This organization is composed of students taking agricultural courses. Meetings are held thruout the college year, at which important agricultural topics are discussed by members of the club, and also by prominent speakers from this and other states.

**AMERICAN CHEMICAL SOCIETY.**—The Maine Section of the American Chemical Society has its headquarters at Orono. Some students in the Department of Chemistry are members, and all are welcome to its meetings.

**AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.**—This is an organization for the promotion of the students' interest in electrical engineering work, and to keep him in touch with the latest developments in this branch of engineering activity. Membership in the branch is extended to members of the Electrical Engineering faculty, students pursuing the Electrical Engineering curriculum, and to members and associate members of the Institute.

**AMERICAN SOCIETY OF MECHANICAL ENGINEERS.**—A regularly organized branch of this society holds regular meetings for the presentation and discussion of engineering papers by members and by visiting engineers.

**AMERICAN SOCIETY OF CIVIL ENGINEERS.**—This branch of the society is composed of the students who are enrolled in the curriculum in Civil Engineering. The object of the society is to investigate by reading and discussion the various engineering topics of the day. Monthly lectures are given under the direction of the society by members of the faculties of this and other institutions and by practicing engineers. The affairs of the branch are controlled by the students under the advice of the department.

**CONTRIBUTORS' CLUB.**—This organization, composed of students and members of the faculty who have shown ability in writing, has as its object the cultivation of the literary talents of its members and the general encouragement of literary effort in the university community. Meetings are held twice monthly, at which original stories, essays, and poems are read and criticized by the club members.

**CERCLE FRANÇAIS.**—The object of the Cercle Français is to cultivate the spoken French language and arouse and stimulate an interest in the intellectual life of France. The work is carried on in French. Papers are read and discussed and addresses delivered by the members. Plays are studied with a view toward production in French. The Cercle meets once in two weeks.

**CIRCULO ESPANOL.**—This organization was established in 1921 to afford additional practice in the use of the Spanish language, and to promote a knowledge of the culture of Spain as well as of the Spanish American nations. Meetings with programs in Spanish are held every three weeks. Majors in the Department of Spanish and other properly qualified students are eligible for membership.

**ENGLISH CLUB.**—All major and minor students in English, and such other teachers and students as may be elected to membership by reason of their known interest in the study of English. Meetings are held monthly at which addresses or other programs of value are given.

**FORESTRY CLUB.**—All students majoring in the curriculum in Forestry are eligible for membership in the Forestry Club. The purpose of the club is to give an opportunity for presenting informal discussions and technical papers on forestry subjects, and to promote cooperation and general good fellowship among the forestry students. The meetings are held monthly.

**HOME ECONOMICS CLUB.**—This organization is composed of students majoring in Home Economics. Meetings are held regularly once a month at North Hall, the practice house. The object of the society is to keep in touch with current problems in Home Economics, the programs being conducted primarily by the students themselves. The organization also aims to promote cooperation and interest between students and graduates, by the appointment of an alumnae representative for the purpose of sending news to the club from those engaged in the various lines of work.

**MATHEMATICS CLUB.**—All students majoring in mathematics and others who are interested in the study of the subject are eligible for membership in the Mathematics Club. The purpose of this club is to stimulate interest in the study of mathematics and to give to mathematics students the opportunity to present papers and take part in discussions. Meetings are held monthly.

**MAINE MASQUE.**—This is a dramatic club which aims to make a practical study of the acted drama, and to present each year before the public one or more representative plays. Membership is determined by competitive trials to which all men undergraduates are eligible.

**MENORAH ASSOCIATION.**—An intercollegiate organization for the study and advancement of Jewish culture and ideals.

**PHYSICS CLUB.**—Members of the faculty and students who are taking courses in physics or allied subjects are eligible to membership in this organization. Meetings are held every two weeks at which papers are presented and current topics are discussed.

**PRESS CLUB.**—This organization, comprising the press correspondents for the chief newspapers of the state and New England, meets weekly for



the purpose of gathering and disseminating news of interest and value to the university.

**SPEAKERS' CLUB.**—A local honorary society, open to all students who acquire a sufficiently high standing in public debate and oratory. The object of the club is to promote interest in public speaking at the university. It is in active cooperation with the Department of Public Speaking, and superintends some of the minor activities in oratory and debate.

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**MAINE CHRISTIAN ASSOCIATION.**—The Maine Christian Association, composed of men students, has for its object the promotion of Christian fellowship and aggressive Christian work. Classes for the study of the Bible are conducted during the week.

**YOUNG WOMEN'S CHRISTIAN ASSOCIATION.**—This is an organization for religious work composed of women students.

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**ALPHA CHI SIGMA.**—Alpha Chi Sigma is a professional fraternity with chapters in various American colleges and universities. The members are elected from those whose major work is in the Department of Chemistry.

**ALPHA ZETA.**—The Maine chapter of Alpha Zeta, the national agricultural fraternity, was organized at the university in 1905. Chapters exist in twenty-seven other universities. Membership is honorary and is restricted to students attaining high class standing or to graduates who have shown marked ability along the lines of agricultural study and research.

**PHI KAPPA PHI.**—The Phi Kappa Phi, founded at the University of Maine, is an honor society. Early in the fall semester of the senior year the seven members of the class having the highest standing are elected members, and during the spring semester the ten next highest may be elected.

**SCABBARD AND BLADE.**—Scabbard and Blade is an honorary military fraternity. Active membership is restricted to cadet officers of high moral and scholastic standing. Honorary members may be elected from commissioned officers of the United States Army; also non-military persons deemed worthy of the honor. The University of Maine company (Co. D., 2nd Reg't.) was organized in 1916. Companies exist in seventeen other colleges and universities.

**SIGMA DELTA CHI.**—This is an honor fraternity open to sophomores, juniors, and seniors who have shown unusual ability in the various courses in journalism, and who propose to enter upon journalism as a profession.

**TAU BETA PI.**—Tau Beta Pi is an honor fraternity for engineers and has chapters in leading universities and technical schools. Elections are



made from those juniors and seniors in engineering who have shown high mental and moral qualifications.

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**UNIVERSITY BAND.**—This is a military and concert organization attached to the Cadet Corps. It is composed of students in the Military department, and rehearsals are conducted by the director of music as regular class work, for which the men receive credit. The band plays for various university functions and games and makes concert trips to nearby cities and towns.

**UNIVERSITY CHORUS AND ORCHESTRA.**—These bodies are organized from students, faculty, and outside assisting talent, and are conducted by the director of music. A varied repertoire of classic and lighter numbers are studied and performed at concerts and other occasions. Chorus members are admitted to the Maine Festival Chorus, and orchestra members of talent and proper training are given consideration whenever vacancies occur in the Bangor Symphony Orchestra, a semi-professional organization.

**MUSICAL CLUBS.**—Glee and mandolin clubs are maintained by both men and women students and concert trips are taken at intervals during the college year.

## UNIVERSITY PUBLICATIONS

**UNIVERSITY OF MAINE STUDIES.**—These are occasional publications containing reports of investigations or researches made by university officers or alumni.

**MAINE BULLETIN.**—This is a publication issued monthly during the academic year, to give information to the alumni and the general public. It includes the Annual Report and the Annual Catalog.

**THE MAINE ALUMNUS.**—This is published five times during the academic year by the General Alumni Association and is sent free to all former students of the university.

**ANNUAL REPORT OF THE AGRICULTURAL EXPERIMENT STATION AND THE AGRICULTURAL EXPERIMENT STATION BULLETINS.**—These give complete results of the work of investigation of the station. The Bulletins and Official Inspections are sent free on request to any resident of Maine.

**OFFICIAL INSPECTIONS.**—These are published by the Agricultural Experiment Station, and contain the result of the work of inspection of agricultural seeds, commercial feeding stuffs, commercial fertilizers, drugs, foods, fungicides, and insecticides.

**EXTENSION BULLETINS AND EXTENSION NEWS LETTERS.**—These publications are issued by the Agricultural Extension Department. A limited supply of the bulletins is available for distribution and will be forwarded on application. The News Letters are distributed to newspapers and persons whose names are on the classified mailing lists.

**MAINE CAMPUS.**—This is a paper published weekly during the academic year by an association of the students.

**PRISM.**—The Prism is an illustrated annual, published by the junior class.

**THE MAINE-SPRING.**—This is a literary magazine published four times a year. It is under the supervision of the Contributors' Club.

**PRACTICAL HUSBANDRY.**—This is a monthly magazine published under the direction of the Agricultural Club. It is devoted to practical and technical agriculture.

## PUBLIC WORSHIP

A short service of a religious character is held in the chapel four days in the week. Students receive a cordial welcome at all services in the churches of Orono. Voluntary religious services are held each week under the direction of the Maine Christian Association and the Young Women's Christian Association.

## STUDENT REGULATIONS

It is assumed that all students entering the university are willing to subscribe to the following: *A student is expected to show, both within and without the university, respect for order, morality, and the rights of others, and such sense of personal honor as is demanded of good citizens and gentlemen.*

A pamphlet containing special information for the guidance of students may be obtained from the Registrar.

The quota of regular studies for each student varies from a minimum of fourteen hours to a maximum of eighteen hours in the College of Arts and Sciences, and from a minimum of seventeen hours to a maximum of twenty-two hours in the College of Agriculture and the College of Technology. In the application of this rule, two or three hours of laboratory work count as one hour.

Each student is expected to be present at every college exercise for which he is registered.

## SCHOLARSHIP HONORS

Scholarship honors are awarded to seniors whose scholarship places them in the first 15 per cent. of their class. The names of students winning these honors are printed in the catalog.

## DEGREES

### BACHELORS' DEGREES

The degree of Bachelor of Arts (B. A.), with specification of the major subject, is conferred upon all students who complete a curriculum in the College of Arts and Sciences.

The degree of Bachelor of Science (B. S.) in the curriculum pursued is conferred upon students who complete the prescribed work of four years in the Colleges of Agriculture or Technology.

The degree of Bachelor of Pedagogy (B. Pd.) is conferred upon students in the College of Arts and Sciences who have completed a course in an approved high school, a course in a normal school, and two years under prescribed conditions at the university.

A minimum residence of one year is required for the attainment of any bachelor's degree.

### ADVANCED DEGREES

Graduate students, whether candidates for a degree or not, are required to register at the office of the university at the beginning of each semester or summer term. They must have their course of study approved by the Committee on Graduate Study at the beginning of their work. Those entering the university after that date must obtain the consent of the Committee on Graduate Study before they can count a full year's work.

Each candidate for the master's degree shall report before registering at the beginning of each semester or the summer term to the chairman of the committee or to some member representing a field of work nearly related to his own. Candidates for the degree of Master of Arts or Master of Science, must have received the corresponding bachelor's degree from this institution or from one granting a fully equivalent degree.

Candidates who are graduates of other institutions are required to present at registration credentials covering the courses pursued and the standing attained.

At least one year must elapse between the conferring of the bachelor's and the master's degree.

No work done before the recommending of the bachelor's degree shall be counted towards the master's degree.

The candidate shall devote at least one year to graduate resident study and shall complete work amounting to fifteen hours per week thruout the college year.

A registration fee of \$5 is charged, and an additional fee of \$15 for examinations and diploma is payable upon the completion of the work. One registration fee only is required of graduate students.

A fee of \$5.00 is required at the time of registration for a professional degree, and a fee of \$10.00 is required upon the presentation of the thesis.

The curriculum shall include work in one major department or subject in which the candidate has already pursued undergraduate study for at least two years, and work in not more than two minor subjects which bears a distinct relation to the general plan or purpose of the major subject.

At least three-fifths of the work must be done in the major subject. In special cases all the work may be done in one department. All of the work must be of advanced character and must be tested by examinations which the candidate shall pass with distinction. Final written examinations for all regular courses completed, together with a copy of the questions set, shall be deposited with the secretary of the committee.

The candidate shall prepare as a part of his curriculum a satisfactory thesis on some topic connected with the major subject. The thesis must be deposited in completed form with the Dean of the University on or before the date set for the oral examination.

At the end of the course of study for the master's degree, the candidate will be required to pass an oral examination covering his work, including the thesis work. This examination shall be open to all voting members of the faculty of the university. The time for such examinations will be arranged by the Dean of the University to accord, so far as possible, with the convenience of the candidate and the major instructor, between the dates of May 15 and June 1; but no student will be admitted to an oral examination until his thesis has been accepted. On May 15, the Dean of the University will notify the heads of all departments of the university of the dates set for the public oral examinations of all candidates of the year. While the examination will in each case, as a matter of course, be conducted chiefly by the members of the department in which the work has been done, any member of the faculty present at the examination has the privilege of questioning the candidate. The Committee on Graduate Study will be represented at each examination.

The professional degrees of Chemical Engineer (C. E.), Civil Engineer (C. E.), Electrical Engineer (E. E.), and Mechanical Engineer (M. E.) may be conferred upon graduates in the curricula in Chemistry, Chemical Engineering, Electrical Engineering, and Mechanical Engineering, respectively, upon the presentation of satisfactory theses, after at least

three years of professional work subsequent to graduation. During at least two of the years after graduation the candidate must have occupied a position of responsibility. Candidates are expected to be present in person to receive their degrees.

## THESES

Theses shall be printed, or typewritten in black record, unless the subject matter prevents, and the paper used shall be a standard thesis paper, 8 x 10 1-2 inches, which may be procured at the University Store. Care should be taken to have a margin of one inch on the inner edge, at least one-half inch on the outer edge, one and one-half inches at the top, and one inch at the bottom of the page.

If drawings accompany the thesis, they may be bound in with the rest of the pages or placed in a pocket on the inside of the book cover; or if too many for this, they may be bound separately according to personal instructions of the head of the department.

A draft of all undergraduate theses must be passed to the major instructor before May 1.

Complete instructions may be found in a pamphlet entitled "Degrees and Theses."

## STUDENT EXPENSES

The estimates are prepared upon the basis of students living in university halls.

### ESTIMATE OF ANNUAL EXPENSES

	Students from within the State	Students from without the State
Tuition	\$125 00	\$195 00
Text-books	10 00 to 50 00	10 00 to 50 00
Board 36 weeks @ \$5.00	180 00	180 00
Room in a dormitory	36 00	36 00
	\$351 00 to \$391 00	\$421 00 to \$461 00

### SPECIAL CHARGES

A fee of \$2.00 is charged a student for each special examination. Students registering after the prescribed day of registration for the fall or spring semester shall pay an additional fee of two dollars. No laboratory fees are charged in any department.



## Rooms

The rooms in the Mt. Vernon House, Balentine Hall, Oak Hall, and the middle section of Hannibal Hamlin Hall accommodate two students each. All other rooms accommodate four students each.

Dormitory charges include steam heat and electric lights. The rooms in the dormitories for men are furnished with beds, mattresses, chiffoniers, desks, and chairs. Each resident in the dormitory has bed linen and three towels laundered each week without extra charge. Students furnish pillows, bed linen, and blankets.

Women students not living at home are required to live in one of the women's dormitories. In exceptional cases women students are allowed to live at some boarding house approved by the President. To secure the reservation of a room in a university dormitory, application, accompanied by a deposit of \$5.00, should be made to the Registrar.

## DEPOSITS TO COVER EXPENSES

The University requires all students to pay in advance. The payments indicated below are required at the beginning of each semester.

	Residents of Maine	Non-Residents of Maine
Tuition	62.50	97.50
Board and Room	108.00	108.00
Key Deposit (men only)	5.00	5.00
Total	175.50	210.50

For students who do not room and board in university halls the above amounts are reduced by \$113.00.

All men taking military are required to make a deposit of \$25.00 to cover cost of equipment.

## COMMUNICATIONS

Communications with reference to financial affairs of students should be addressed to the Treasurer of the University of Maine.

## KITREDGE LOAN FUND

This fund, amounting to nearly one thousand dollars, was established by Nehemiah Kittredge, of Bangor. It is in the control of the



President and the Treasurer of the University, by whom it is loaned to needy students in the three upper classes. In the deed of gift it was prescribed that no security but personal notes bearing interest at the prevailing rate should be required. Loans are made on the conditions that the interest be paid promptly, and that the principal be returned from the first earnings after graduation. Individual loans are limited to \$50.00.

## SCHOLARSHIPS AND PRIZES

THE KIDDER SCHOLARSHIP, thirty dollars, was endowed by Frank E. Kidder, Ph. D., Denver, Colorado, a graduate of the university in the class of 1879. This scholarship is awarded to a student whose rank excels in his junior year. The selection is made by the President and the Faculty.

NEW YORK ALUMNI ASSOCIATION SCHOLARSHIPS.—SCHOLARSHIP No. 1, fifty dollars, is offered for excellence in debating. In case the effort in debating does not justify this award in any year or years the amount shall be accumulative.

SCHOLARSHIP No. 2, fifty dollars, is offered annually to encourage advancement and proficiency in English, particularly along the lines which will assist toward facility in correct, clear, direct, and efficient written and oral expression in later professional, commercial, and civil life.

The candidates for this scholarship shall be juniors in the College of Technology. They shall assemble on an announced date and each one shall be required to compose an essay on a subject selected from a list of ten, of which five are chosen by the Department of English and five by the College of Technology. The award will be based upon the quality of the essay and the advancement which is indicated by the student's grade in courses in English. There shall be three judges one of whom shall represent the College of Technology and the other two shall be selected by the Department of English.

PITTSBURG ALUMNI ASSOCIATION SCHOLARSHIP, thirty dollars, awarded to a member of the junior class in the College of Technology. The ability of the student and his needs are considered in making this award. The selection is made by the President and the professors of the College of Technology.

PRIZE OF THE CLASS OF 1873. The late Russell W. Eaton, of Brunswick, a member of the class of 1873, deposited with the university treasurer a \$1000 Liberty Bond, the income of which shall be awarded annually to that member of the sophomore class who is able to show the greatest improvement in mechanical drawing during the first two years of his college course.

It is expected that candidates for this prize shall have had no training in mechanical drawing previous to entering the university.

WESTERN ALUMNI ASSOCIATION SCHOLARSHIP, thirty dollars, is awarded to a sophomore pursuing a regular curriculum whose deportment is satisfactory and who attains the highest rank of his class during the freshman year.

THE ELIZABETH ABBOTT VALENTINE SCHOLARSHIP was endowed by the Gamma chapter of Alpha Omicron Pi for a woman member of the sophomore class to be determined by the President and the faculty. This scholarship will be at least thirty dollars. Both scholarship and individual need are to be considered in the award.

THE PHI MU SCHOLARSHIP, thirty dollars, will be awarded each year to a woman student whose scholarship and conduct are deserving and who is in need of financial assistance. The selection will be made by the President of the university, the President of the sorority, and the faculty Committee on Honors.

THE JOSEPH RIDER FARRINGTON SCHOLARSHIP, a gift of Arthur M., Edward H., Oliver C., Horace P., and Wallace R. Farrington, all graduates of the University of Maine and sons of Mr. and Mrs. Joseph Rider Farrington. The gift amounts to \$1000 and provides a scholarship under conditions mentioned by the donors. The following order of preference is considered in awarding this scholarship: (a) To any direct descendant of Joseph Rider and Ellen Holyoke Farrington, or any one whom three of such descendants may select; (b) To any student bearing the surname Farrington or Holyoke; (c) To the student in the junior class of the College of Agriculture who attains the highest rank in studies and deportment during that year and who shall make application for the scholarship. Further details concerning this scholarship may be secured by consulting the Dean of the College of Agriculture.

STANLEY PLUMMER SCHOLARSHIP, Colonel Stanley Plummer of Dexter, Maine, provided a scholarship as set forth in the following paragraph from his will: I give and bequeath to the corporation of the University of Maine, Orono, Maine, the sum of One Thousand Dollars, the income thereof to be given to needy and deserving students in said University, to be selected by the Trustees of the university, who shall have full control of said fund, which shall be known as the "*Stanley Plummer Scholarship*." Students born in Dexter, Maine, shall have the preference; but, if there are none such, any needy and deserving students may be selected.

WALTER VALENTINE PRIZE, fifteen dollars, the gift of Whitman H. Jordan, Sc.D., LL.D., Orono, Maine, a graduate of the university of the class of 1875, is awarded to that student who excels in biological chemistry.

FRANKLIN DANFORTH PRIZE, ten dollars, the gift of the Hon. Edward F. Danforth, Skowhegan, a graduate of the university of the class of 1877 in memory of his father, Franklin Danforth, is awarded to that member

of the senior class in an agricultural curriculum who attains the highest standing.

THE WASHINGTON ALUMNI ASSOCIATION WATCH is presented to the member of the graduating class, who, in the opinion of the faculty and students, has done the most for the university during his course.

This award is made as the result of a secret ballot by the students and passed upon by the President and the faculty.

THE PENOBSCOT VALLEY ALUMNI ASSOCIATION SCHOLARSHIP, fifty dollars, is given to a student preferably from the Penobscot Valley whose college record is worthy of recognition and who needs some financial assistance.

THE TRACK CLUB SCHOLARSHIP, fifty dollars, is given by the Track Club to some member of the freshman class who needs financial help. He must be a man interested in track athletics but need not necessarily make his "M" in his freshman year. His scholarship must be satisfactory.

The awarding of this scholarship will be in the hands of a committee composed of the President of the Track Club, the Coach of the Track Team, and the Chairman of the faculty Committee on Honors. The winner will be given the scholarship upon his return to college at the beginning of his sophomore year. Applications for this scholarship must be made in writing and sent to the President of the Track Club before May 1.

THE ALPHA OMICRON PI ALUMNAE PRIZE, ten dollars, given by the Bangor Alumnae Chapter of Alpha Omicron Pi. The award is made to a woman student showing the greatest improvement in her work during her freshman year. The record at the Registrar's office showing the comparison of grades of the fall semester as compared with that of the spring semester will furnish the basis of award.

THE MENORAH PRIZE, ten dollars, the gift of the Maine Menorah Association, is awarded to the student who presents the best essay on any Jewish subject.

These essays should be presented to the Head of the Department of English previous to May 1.

JUNIOR EXHIBITION PRIZES, fifteen dollars each, are awarded to the members of the junior class who deliver the best orations at the junior exhibition. One prize is awarded to the man receiving the first rank in competition with the men of the junior class, and one prize awarded to the woman receiving first rank in competition with the women of the junior class. In the award of these prizes regard is given to thought, style, and delivery. Copies of these orations must be deposited with the Registrar before February 1.

SOPHOMORE ESSAY PRIZES, two of fifteen dollars each, one for men and one for women, are awarded to members of the sophomore class for excellence in composition. These essays must be presented by May 1.

CLASS OF 1908 COMMENCEMENT CUP is awarded to the class, the largest percentage of whose members register during Commencement week.

FRATERNITY SCHOLARSHIP CUP, presented to the university by the 1910 Senior Skull Society in 1910, and renewed in 1921 by the 1921 Skulls, is awarded at Commencement to that fraternity having the highest standing in scholarship for the preceding calendar year. The cup is to be awarded for eleven years, 1921 to 1931 inclusive, and the fraternity to which it is awarded the greatest number of times is to be its permanent owner.

FRESHMAN SCHOLARSHIP CUP, presented by the Junior Mask Society, is awarded at Commencement to the fraternity whose freshman delegation has the highest standing in scholarship for the first semester.

AGRICULTURAL CLUB MEMBERSHIP CUP is furnished by the Agricultural Club to be engraved each year with the numerals of that class which can show the best record of membership in the club.

THE CHARLES RICE CUP, presented by the Kappa Sigma Fraternity in honor of the late Charles Anthony Rice who was killed in service, is held for one year by the team winning the Intra-Mural Track Championship.

UNIVERSITY OF MAINE HONORARY SOCIETY SCHOLARSHIP, one hundred dollars, is to be contributed pro rata by the individual members of the Senior Skulls, Junior Masks, and Sophomore Owls.

1. This scholarship is to be awarded jointly by the Athletic Board of the University of Maine and the faculty committee on Honors.

2. The scholarship is to be awarded to some needy student who in the opinion of the Athletic Board is the best athlete making his "M" during his freshman year, and who is eligible upon his return to college the following semester.

3. The award will be announced at Commencement and the scholarship paid to the winner upon his return to college in the following September.

## ADMISSION

GENERAL REQUIREMENTS.—Candidates for admission should apply to the Registrar for an application card. They must present satisfactory certificates of fitness, or pass the required examinations, and make a cash deposit covering the bills of one semester. The university admits men and women, both residents of Maine and non-residents.

ADMISSION TO ADVANCED STANDING.—Candidates for advanced standing are examined in the preparatory studies, and in those previously pursued by the classes they wish to enter, or in other equivalent studies. Certificates from approved schools are accepted for the preparatory work, but certificates are not accepted for any part of the college work, unless

such work has been done in a college. Students transferring from another college must present a letter of honorable dismissal.

**SPECIAL STUDENTS.**—Persons 21 years of age, not candidates for a degree, may be admitted as special students if they give satisfactory evidence that they are prepared to take the desired subjects.

#### ADMISSION TO SHORT COURSES

Candidates for admission to the two-year **SCHOOL COURSE IN AGRICULTURE** must be over fifteen years of age and prepared for advanced grammar or high school work.

#### ADMISSION BY EXAMINATIONS

Entrance examinations are held at Orono, beginning four days before the opening of the fall semester, and on Tuesday, Wednesday, Thursday, and Friday preceding Commencement. Candidates for admission by examination, should present statements from their school principals regarding their fitness to take the examinations and to undertake college work.

The examinations given by the College Entrance Examination Board will be accepted by the university. These examinations will be held during the week June 18-23, 1923. All applications for these examinations must be addressed to the Secretary of the College Entrance Examination Board, Post Office Sub-Station 84, New York, N. Y., and must be made upon a blank form to be obtained from the Secretary of the Board upon application. Applications must be made before May 31 and must be accompanied by the examination fee of \$9.00.

A candidate who wishes to be examined on part of his work in advance of the year in which he proposes to enter the university may receive credit for such examination, provided he has completed not less than one-half of his preparatory work. Examinations on subjects which are to be continued in college should not be taken more than one year in advance.

#### ADMISSION OF GRADUATES FROM CLASS A SCHOOLS IN MAINE

Graduates from Maine high schools and academies placed by the State Superintendent of Schools in Class A may be admitted upon their school records, provided they have pursued a course of study including all the subjects required for admission to the curriculum that they propose to follow and a sufficient number of the elective subjects to make a total of fourteen and a half units.

In 1922 candidates whose school grades averaged less than five units above their school pass-mark were not admitted on their record, and those



whose averages were five units and less than ten above the pass-mark were admitted on trial. It is expected that similar and possibly further limitations will be made in 1923. If further change is found necessary early notice will be given to secondary school principals.

The school record of the candidates must be certified by the principal, upon blanks furnished by the university, and should be submitted before August 1.

#### ADMISSION BY CERTIFICATE FROM SCHOOLS OUTSIDE OF MAINE

Principals of schools situated outside of Maine who desire the certificate privilege must make application to the Dean of the University, and must furnish satisfactory evidence that the course of study in the school meets the requirements for admission. Blank forms for this purpose will be supplied on request.

Certificates will not be accepted for non-graduates except in unusual cases, and then only provided the candidate is expressly recommended for admission by the principal of the high school from which he comes. Certificates must be made out on blanks furnished by the university.

Certificates issued by the Regents of the University of the State of New York are accepted for any of the subjects in which we give admission credit and which are certified as having been passed with a satisfactory grade.

### REQUIRED SUBJECTS

#### COLLEGE OF ARTS AND SCIENCES

English .....	3	units
Foreign languages (four years in one or two in each of two) .....	4	"
History .....	1	"
Mathematics (Algebra and Plane Geometry) .....	2	"
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Total .....	10	units

#### COLLEGE OF AGRICULTURE

English .....	3	units
*Algebra .....	1	"
*Plane Geometry .....	1	"
Science (including laboratory note-book) .....	1	"
History .....	1	"
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Total .....	7	units

\*For admission to the Home Economics curriculum, two units in mathematics acceptable to the Committee on Admission are required.



## COLLEGE OF TECHNOLOGY

English .....	2	units
Foreign languages (three years in one or two in each of two) 3 or 4 units		
Algebra .....	2	"
Plane and Solid Geometry.....	1½	"
History .....	1	"
Science .....	1	"
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Total .....	10½	units

## ELECTIVE SUBJECTS

A total of fourteen and one-half units is required for admission to any four year curriculum. The units not named above under required subjects may be selected as shown in the following table. Subjects not listed may be accepted among the electives, provided they represent a satisfactory equivalent for those listed.

The required units and the units that may be accepted in various subjects in the respective colleges are shown in tabular form.

SUBJECTS	Units required and units accepted in the several colleges							
	Units Accepted		Arts and Sciences		Agriculture		Technology	
	Min.	Max.	Req.	Acc.	Req.	Acc.	Req.	Acc.
English	3	3	3	3	3	3	3	3
French	*2	4	Four units in one language or two in each of two	2, 3, or 4		1, 2, 3, or 4	††	1, 2, 3, or 4
German	2	4		2, 3, or 4		1, 2, 3, or 4		1, 2, 3, or 4
Greek	2	3		2 or 3		1, 2, or 3		1, 2, or 3
Latin	2	4		2, 3, or 4		1, 2, 3, or 4		1, 2, 3, or 4
Spanish	2	3		2 or 3		1, 2, or 3		1, 2, or 3
Algebra (Elem.)	1	**2	1	2	\$1	2	2	2
Plane geometry	1	1	1	1	\$1	1	1	1
Solid geometry	$\frac{1}{2}$	$\frac{1}{2}$		$\frac{1}{2}$		$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Trigonometry	$\frac{1}{2}$	$\frac{1}{2}$		$\frac{1}{2}$		$\frac{1}{2}$		$\frac{1}{2}$
Algebra (Adv.)	$\frac{1}{2}$	$\frac{1}{2}$		$\frac{1}{2}$		$\frac{1}{2}$		$\frac{1}{2}$
History	1	4	1	1, 2, 3, or 4	1	1, 2, 3, or 4	1	1, 2, 3, or 4
Civics	$\frac{1}{2}$	1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1
Economics	$\frac{1}{2}$	1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1
Biology	†1	1		1	One unit in Science	1	One unit in Science	1
Botany	†1	1		1		1		1
Chemistry	†1	2		1 or 2		1 or 2		1 or 2
Physics	†1	2		1 or 2		1 or 2		1 or 2
Physiography	$\frac{1}{2}$	1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1
Physiology	$\frac{1}{2}$	1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1
Zoology	†1	1		1		1		1
Agriculture	1	4		Not over two units in all of these		Not over four units in all of these		Not over four units in all of these
Domestic Science and Art	1	4						
Drawing	† $\frac{1}{2}$	2						
Manual Training	† $\frac{1}{2}$	2						
Commercial Subjects	$\frac{1}{2}$	4						
Music	$\frac{1}{2}$	1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1
Bible Study	$\frac{1}{2}$	1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1		$\frac{1}{2}$ or 1

\*Candidates for Technology who meet the requirement in one language may have credit for a single year of another language.

\*\*To receive two units credit in elementary algebra, the candidate must have two full years including senior review.

†The work in these subjects must include laboratory work with notebook, as specified in the detailed statement.

‡Credit for these subjects and for bookkeeping and typewriting is at the rate of one-half unit for a subject taken five forty-five minute periods per week for a year.

§See foot-note on bottom of page 40.

††Three units in one modern foreign language, or two units in each of two foreign languages (Latin and French preferred).

## REQUIREMENTS IN DETAIL

### Languages

**ENGLISH.**—The entrance examination in English presupposes courses in composition and English literature pursued in the high school during four years. Prospective students are warned against attempting to prepare the required work in less time. Progress in composition particularly is of slow growth and requires almost daily cultivation during a long period of time. Books, to be thoroly enjoyed and appreciated, should be read at leisure and under favorable circumstances.

**Rhetoric.**—Candidates are expected to have had practice in composition for at least two days a week during the whole four years of the high school, and to have included in the latter part of their course such work in the elements of rhetoric as, for example, is contained in Hitchcock's or Brook's rhetorics.

**Grammar.**—The examination will include questions on the syntax of sentences, and on general grammatical principles.

**Weight of Composition.**—The examination is mainly designed to test the candidate's ability to express his thought correctly and clearly. It is quite possible to answer all questions on the literature correctly, and yet fail on the examination as a whole because of crude and ungrammatical English. Prospective candidates are advised to give especial attention to spelling, punctuation, grammatical correctness, idiomatic words and phrases, sentences and paragraph formation.

**Subjects.**—Subjects for short compositions will be taken from a prescribed list of books; also from the candidate's general knowledge and experience.

The prescribed books are those adopted by the Conference on Uniform Entrance Requirements. There is a list for general reading and a list for study. They will be furnished upon application to the Registrar.

FRENCH.—The admission requirements in elementary and intermediate French are those recommended by the Modern Language Association of America.

I. *Elementary French*.—At the end of the second year the pupil should be able to pronounce French accurately, to read at sight easy French prose, to put into French simple English sentences taken from the language of everyday life or based upon a portion of the French text read, and to answer questions on the rudiments of the grammar as defined below.

The first year's work should comprise: (1) careful drill in pronunciation; (2) the rudiments of grammar, including the inflection of the regular and the more common irregular verbs, the plural of nouns, the pronouns, common adverbs, prepositions, and conjunctions; order of words in the sentences, and elementary rules of syntax; (3) abundant easy exercises, designed not only to fix in memory the forms and principles of grammar, but also to cultivate readiness in reproducing natural forms of expression; (4) the reading of 100 to 175 duodecimo pages of graduated texts, with constant practice in translating into French easy variations of the sentences read (the teacher giving the English), and in reproducing from memory sentences previously read; (5) writing French from dictation.

The second year's work should comprise: (1) the reading of 250 to 400 pages of easy modern prose in the form of stories, plays, or historical or biographical sketches; (2) constant practice, as in the previous year, in translating into French easy variations upon the texts read; (3) frequent abstracts, sometimes oral and sometimes written, of portions of the text already read; (4) writing French from dictation; (5) continued drill upon the rudiments of grammar, with constant application in the construction of sentences; (6) mastery of the forms and use of pronouns, pronominal adjectives, of all but the rare irregular verb forms, and of the simpler uses of the conditional and subjunctive.

Suitable texts for the second year are: About, *le Roi des montagnes*; Bruno, *le tour de la France*; Daudet, easier short tales; De la Bédollière, *la Mère Michel et son chat*; Erckmann-Chatrion, novels; Foa, *Contes biographiques* and *le Petit Robinson de Paris*; Foncin, *le Pays de France*; Labiche et Martin, *la Poudre aux yeux* and *le Voyage de M. Perrichon*; Legouvé et Labiche, *la Cigale chez les fourmis*; Malot, *Sans famille*; Mairat, *la Tâche du petit Pierre*; Mérimée, *Colomba*; extracts from Michelet; Sarcey, *le Siège de Paris*; Jules Verne's stories.

II. *Intermediate French*.—At the end of the third year the pupil should be able to read at sight ordinary French prose or simple poetry, to translate into French a connected passage of English based on the text read, and to answer questions involving a more thorough knowledge of syntax than is expected in the elementary course.

This should comprise the reading of 400 to 600 pages of French of ordinary difficulty, a portion to be the dramatic form; constant practice in giving French paraphrases, abstracts, or reproductions from memory of selected portions of the matter read; the study of a grammar of moderate proportions; writing from dictation.

Suitable texts are: About, novels; Augier et Sandeau, *le Gendre de M. Poirier*; Béranger, *poems*; Corneille, *le Cid* and *Horace*; Coppée, *poems*; Daudet, *la Belle Nivernaise*; La Brète, *Mon oncle et mon curé*; Madame de Sévigné, letters; Victor Hugo, *Hernani* and *la Chute*; Labiche, plays; Loti, *Pêcheur d'Islande*; Mignet, historical writings; Racine, *Andromaque* and *Esther*; George Sand, novels; Sandeau, *Mademoiselle de la Seiglière*; Scribe, plays; Thierry, *Récits*; Vigny, *la Canne de jonc*; Voltaire, historical writings.

At the end of the fourth year the pupil should be able to read at sight, with the help of a vocabulary of special or technical expressions, difficult French not earlier than that of the seventeenth century; to write in French a short essay on some simple subject connected with the works read; to put into French a passage of easy English prose, and to carry on a simple conversation in French.

This should comprise the reading of from 600 to 1,000 pages of standard French, classical and modern, only difficult passages being explained in the class; the writing of numerous short themes in French; the study of syntax.

Suitable reading matter will be: Beaumarchais, *le Barbier de Séville*; Corneille, dramas; Dumas père, prose writings; Dumas fils, *la Question d'argent*; Victor Hugo, *Ruy Blas*, lyrics, and novels; La Fontaine, *Fables*; Larmartine, *Graziella*; Marivaux, plays; Molière, plays; Musset, plays and poems; Pellissier, *le Mouvement littéraire au XIX<sup>e</sup> siècle*; Renan, *Souvenirs d'enfance et de jeunesse*; Rousseau, writings; Sainte-Beuve, essays; selections from Zola, Maupassant, and Balzac.

The examination of the College Entrance Certificate Board in elementary French will be accepted for two units, and that in intermediate French for one additional unit.

GERMAN.—The admission requirements in elementary and advanced German are those recommended by the Modern Language Association of America.

I. *Elementary German*.—The first years' work should comprise: (1) careful drill upon pronunciation; (2) memorizing and frequent repetition of easy colloquial sentences; (3) drill upon the rudiments of grammar, that is, upon the inflection of the articles, of such nouns as belong to the language of every-day life, of adjectives, pronouns, weak verbs, and the more unusual strong verbs; also in the use of the more common prepositions, the simpler uses of the modal auxiliaries, and the elementary rules of syntax and word order; (4) abundant easy exercises designed



not only to fix in mind the forms and principles of grammar but also to cultivate readiness in reproducing natural forms of expression; (5) the reading of 75 to 100 pages of graduated texts from a reader, with constant practice in translating into German easy variations upon sentences selected from the reading lesson (the teacher giving the English), and in reproducing from memory sentences previously read.

The second year's work should comprise: (1) the reading of 150 to 200 pages of literature in the form of easy stories and plays; (2) accompanying practice, as before, in translating into German easy variations upon the matter read, also in the off-hand reproductions, sometimes orally and sometimes in writing of the substance of short and easy selected passages; (3) continued drill in the rudiments of grammar, to enable the pupil first, to use his knowledge with facility in forming sentences, and secondly, to state his knowledge correctly in the technical language of grammar.

Stories suitable for the elementary course can be selected from the following list: Anderson, *Märchen* and *Bilderbuch ohne Bilder*; Baumbach, *Die Nonna* and *Der Schwiegersohn*; Gerstäcker, *Germelshausen*; Heyse, *L'Arrabbiata*, *Das Mädchen von Treppi*, and *Anfang und Ende*; Hillern, *Höher als die Kirche*; Jensen, *Die braune Erica*; Leander, *Träumereien* and *Kleine Geschichten*; Seidel, *Märchen*; Stokl, *Unter dem Christbaum*; Storm, *Immensee* and *Geschichten aus der Tonne*; Zschokke, *Der zerbrochene Krug*.

The best shorter plays available are: Benedix, *Der Prozess*, *Der Weiberfeind*, and *Günstige Vorzeichen*; Elz, *Er ist nicht eifersüchtig*; Wichert, *An der Majorsecke*; Wilhelmi, *Einer muss heiraten*. Only one of these plays needs be read and the narrative style should predominate. A good selection of reading matter for the second year would be Andersen, *Märchen* or *Bilderbuch*, or Leander, *Träumereien*, to the extent of about forty pages. Afterward, such a story as *Das kalte Herz*, or *Der zerbrochene Krug*; then *Höher als die Kirche*, or *Immensee*; next a good story by Heyse, Baumbach, or Seidel, last *Der Prozess*.

II. *Advanced German*.—The work should comprise, in addition to the elementary course, the reading of about 400 pages of moderately difficult prose and poetry, with constant practice in giving, sometimes orally and sometimes in writing, paraphrases, abstracts, or reproductions from memory of selected portions of the matter read, also grammatical drill in the less usual strong verbs, the use of articles, cases, auxiliaries of all kinds, tenses and modes (with especial reference to the infinitive and subjunctive), and likewise in word order and word formation. To do this work two school years are usually required.

Suitable reading matter for the third year may be selected from such work as the following: Ebner-Eschenbach, *Die Frierherren von Gemperlein*; Freytag, *Die Journalisten* and *Bilder aus der deutschen Ver-*



gangenheit, Karl der Grosse, Aus den Kreuzzügen, Doktor Luther, Aus dem Staat Friedrichs des Grossen; Fouqué, Undine; Gerstäcker, Irrfahrten; Goethe, Hermann und Dorothea and Iphigenie; Heine's Poems and Reisebilder; Hoffman, Historische Erzählungen; Lessing, Minna von Barnhelm; Meyer, Gustav Adolphs Page; Moser, Der Bibliothekar; Riehl, Novellen, Burg Neideck, Der Fluch der Schönheit, Der Stumme Ratsherr, Das Spielmannskind; Rosegger, Waldheimat; Schiller, Der Neffe als Onkel, Der Geistersehr, Wilhelm Tell, Die Jungfrau von Orleans, Das Lied von der Glocke, Balladen; Scheffel, Der Trompeter von Säckingen; Uhland's Poems; Wildenbruch, Das edle Blut. A good selection would be: (1) one of Riehl's novelettes; (2) one of Freytag's "pictures;" (3) part of Undine or Der Geisterseher; (4) a short course of reading in lyrics and ballads; (5) a classical play by Schiller, Lessing, or Goethe.

The examinations of the College Entrance Certificate Board in elementary German will be accepted for two units, and that in advanced German for one additional unit.

SPANISH.—The admission requirements in Spanish are those of the College Entrance Examination Board.

*Elementary Spanish.*—At the end of the second year of the elementary course the pupil should be able to pronounce Spanish accurately, to read at sight easy Spanish prose, to put into Spanish simple English sentences taken from the language of everyday life or based upon a portion of the Spanish text read, and to answer questions on the rudiments of the grammar, as indicated below.

The first year's work should comprise: (1) Careful drill in pronunciation; (2) the rudiments of grammar, including the conjugation of the regular and the more common irregular verbs, the inflection of nouns, adjectives, and pronouns, and the elementary rules of syntax; (3) exercises containing illustrations of the principles of grammar; (4) the careful reading and accurate rendering into good English of about 100 pages of easy prose and verse, with translation into Spanish of easy variations of the sentences read; (5) writing Spanish from dictation.

The second year's work should comprise: (1) The reading of about 200 pages of prose and verse; (2) practice in translating Spanish into English, and English variations of the text into Spanish; (3) continued study of the elements of grammar and syntax; (4) mastery of all but the rare irregular verb forms and of the simpler uses of the modes and the tenses; (5) writing Spanish from dictation; (6) memorizing of easy short poems.

The emphasis should be placed on careful thoro work with much repetition rather than upon rapid reading. The reading should be selected from the following: A collection of easy short stories and lyrics, carefully graded; Marmol, *Amalia*; Pérez Escrich *Fortuna*; Ramos Carrión and Vital Aza, *Zaragüeta*; Palacio Valdés, *José*; Pedro de Alarcón, *El Capi-*

*tán Veneno*; Selgas, *La mariposa blanca*; Altamirano, *La navidad en las montañas*; the selected short stories of Pedro de Alarcón or Antonio de Trueba.

**LATIN.**—The entrance examination in Latin will consist of four parts as follows:

1. An examination on the elements of Latin grammar and easy translations.

2a. An examination in sight translation of Latin prose suited to test the ability of a candidate who has read from Cæsar (Gallic War and Civil War) and Nepos (Lives) an amount not less than Cæsar, Gallic War, I-IV.

b. Questions on the ordinary forms and constructions of Latin grammar and the translation of easy English sentences into Latin.

3a. An examination on Cicero, speech for the Manilian Law, and the fourth speech against Catiline, with questions on subject matter, literary and historical allusions, and grammar.

b. An examination in sight translation of Latin prose adapted to candidates who have read from Cicero (speeches, letters, and De Senectute) and Sallust (Catiline and Jugurthine War) an amount not less than Cicero, speeches against Catiline I-IV, for the Manilian Law, and for Archias.

c. A test in writing simple Latin prose which shall demand a thorough knowledge of all regular inflections, all common irregular forms, and the ordinary syntax and vocabulary of the prose authors read in school.

4a. An examination on Vergil, *Æneid*, I and IV, and Ovid, *Metamorphoses*, Bk. III, 1-137 (Cadmus), IV, 55-166 (Pyramus and Thisbe), and 663-764 (Perseus and Andromeda), VI, 165-312 (Niobe), VIII, 183-235 (Daedalus and Icarus), X, 1-77 (Orpheus and Eurydice), XI, 85-145 (Midas), with questions on subject matter, literary and historical allusions, and prosody.

b. An examination in sight translation of Latin poetry adapted to candidates who have read from Vergil (*Bucolics*, *Georgics*, and *Æneid*) and Ovid (*Metamorphoses*, *Fasti*, and *Tristia*) an amount not less than Vergil, *Æneid*, I-VI.

A candidate may obtain separate credit for each part except in the College of Arts and Sciences. Each represents a year's work and entrance credit for one unit.

In parts 3 and 4 candidates must deal satisfactorily with both the sight and set passages, or they will not be given credit for either.

**GREEK.**—The grammar, including prosody; Xenophon's *Anabasis*, books I-IV; Homer's *Iliad*, books I-III; the sight translation of easy passages from Xenophon; the translation into Greek of easy passages

based on the required books of the Anabasis. For the last a vocabulary of less usual words will be furnished. Equivalent readings will be accepted in place of those prescribed.

## History

UNITED STATES HISTORY.—A year's work as given in the average high school.

ANCIENT HISTORY.—A year's work as given in the average high school.

ENGLISH HISTORY.—A year's work as given in the average high school.

MEDIEVAL AND MODERN.—A year's work as given in the average high school.

## Mathematics

ALGEBRA.—The four fundamental operations for rational algebraic expressions; factoring, determination of highest common factor and lowest common multiple by factoring; fractions, including complex fractions, and ratio and proportion; linear equations, both numerical and literal, containing one or more unknown quantities; problems depending on linear equations; radicals, including the extraction of the square root of polynomials and of numbers; exponents, including fractional and negative; quadratic equations, both numerical and literal; simple cases of equations with one or more unknown quantities, that may be solved by the methods of linear or quadratic equations; problems depending on quadratic equations; the binomial theorem for positive integral exponents; the formulas for the  $n$ th term and the sum of the terms of arithmetical and geometrical progressions, with applications.

It is assumed that pupils are required thruout the course to solve numerous problems which involve putting questions into equations. Some of the problems should be chosen from mensuration, from physics, and from commercial life. The use of graphical methods and illustrations, particularly in connection with the solution of equations, is also expected.

PLANE GEOMETRY.—The usual theorems and constructions of good text-books, including the general properties of plane rectilinear figures; the circle and the measurements of angles; similar polygons; areas, regular polygons, and the measurement of the circle.

SOLID GEOMETRY.—The usual theorems and constructions of good text-books, including the relations of planes and lines in space; the properties and measurement of prisms, pyramids, cylinders, and cones; the sphere and the spherical triangle.

**TRIGONOMETRY.**—Definitions and relations of the six trigonometric functions as ratios; circular measurement of angles; proofs of principal formulas; in particular for the sine, cosine, and tangent of the sum and the difference of two angles, of the double angle and the half angle; the product expressions for the sum or the difference of two sines or of two cosines, etc.; the transformation of trigonometric expressions by means of these formulas; solution of trigonometric equations of a simple character; theory and use of logarithms (without the introduction of work involving infinite series); the solution of right and oblique triangles, and practical applications.

**ADVANCED ALGEBRA.**—Permutations and combinations, limited to simple cases; complex numbers, with graphical representation of sums and differences; determinants, chiefly of the second, third, and fourth orders, including the use of minors and the solution of linear equations; numerical equations of higher degree, and so much of the theory of equations, with graphical methods, as is necessary for their treatment, including Descartes's rule of signs and Horner's method, but not Sturm's functions or multiple roots.

## Sciences

**\*BIOLOGY.**—This may consist of a continuous course for one year dealing with the problems of general biology, including the study of the structure, functions, and habits of both plants and animals; a course for one year in botany alone; a course for one year in zoology alone; or a course for one-half year in human physiology. The human physiology may be arranged to form a part of the general biology, or of the zoology; but in such cases it must be treated as an integral part of the subject under consideration.

**\*CHEMISTRY.**—The necessary ground is covered by the following text-books: Brownlee and others, Hessler and Smith, McPherson and Henderson, Newell.

**PHYSICAL GEOGRAPHY (PHYSIOGRAPHY).**—A satisfactory preparation may be obtained from either Appleton's or Tarr's Physical Geography.

**\*PHYSICS.**—The work usually covered in one year in a good fitting school.

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\*The work in these sciences must include certified note-books exhibiting the results of experimental work performed by the student. In physics forty exercises are required and in chemistry fifty exercises. These note-books should be presented at the examination. In the case of students certified in the sciences, the principal is expected to pass upon the quality of the note-book rather than send them to the university.

The requirements in botany and zoology are the same as those of the College Entrance Examination Board, and are outlined in the syllabus of the board. The note-book should include properly labeled drawings, and descriptions of experiments, representing as much of the work in this syllabus as may be practicable, and should be the record of a year's laboratory work in the subject. The making of an herbarium is optional.



## Organization of the University

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The university is divided for purposes of administration into the Colleges of Agriculture, Arts and Sciences, and Technology, and the Maine Agricultural Experiment Station. The policies of the university as a unit are determined by the Board of Trustees and the general faculty, but each division regulates those affairs which concern itself alone.

### COLLEGE OF AGRICULTURE

Curricula in Agronomy, Agricultural Education, Animal Husbandry, Biology, Dairy Husbandry, Forestry, Home Economics, Horticulture, and Poultry Husbandry.

School Course in Agriculture (two years).

Short courses; Farmers' Week; Correspondence and Lecture Courses; Demonstration Work; Extension Schools.

### COLLEGE OF ARTS AND SCIENCES

Major subjects may be selected in Biology, Chemistry, Economics and Sociology, Education, English, French, History, Latin, Mathematics and Astronomy, Physics, Psychology, and Spanish and Italian.

### COLLEGE OF TECHNOLOGY

Curricula in Chemical Engineering, Chemistry, Civil Engineering, Electrical Engineering, and Mechanical Engineering.

### MAINE AGRICULTURAL EXPERIMENT STATION

Offices and principal laboratories at Orono; Highmoor Farm at Monmouth; Aroostook Farm at Presque Isle.

GRADUATE COURSES leading to the Master's degree have been organized. These courses are administered by the Committee on Graduate Study.

A SUMMER TERM of six weeks is maintained by the university.

The college year is divided equally into a fall semester and a spring semester. The minimum regular work for a semester in the College of Arts and Sciences is fourteen hours a week. In the College of Agriculture and the College of Technology the minimum is seventeen hours a week. Thirty hours in the major subject represent the minimum requirement for a degree.



## College of Agriculture

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### FACULTY OF INSTRUCTION

- LEON STEPHEN MERRILL, M.D., Sc.D., *Dean and Director of Agricultural Extension Service*
- LUCIUS HERBERT MERRILL, Sc.D., *Professor of Biological and Agricultural Chemistry*
- FREMONT LINCOLN RUSSELL, B.S., V.S., *Professor of Bacteriology and Veterinary Science*
- MINTIN ASBURY CHRYSLER, Ph.D., *Professor of Biology*
- JOHN MANVERS BRISCOE, M.F., *Professor of Forestry*
- GEORGE EDWARD SIMMONS, M.S., D.Sc., *Professor of Agronomy*
- LAMERT SEYMOUR CORBETT, M.S., *Professor of Animal Industry*
- FRANCES ROWLAND FREEMAN, M.S., *Professor of Home Economics*
- HERBERT STAPLES HILL, A.B., *Professor of Agricultural Education*
- HERMAN PITTEE SWEETSER, B.S., *Professor of Horticulture*
- IRVING HILL BLAKE, A.M., *Associate Professor of Biology*
- CHARLES HOWARD BATCHELDER, A.B., M.S., *Associate Professor of Zoology*
- HARRY WOODBURY SMITH, M.S., *Assistant Professor of Biological and Agricultural Chemistry*
- LEWELLYN MORSE DORSEY, B.S., *Assistant Professor of Animal Husbandry*
- BENJAMIN COE HELMICK, M.S., *Assistant Professor of Agronomy*
- ESTHER MCGINNIS, B.Sc., *Assistant Professor of Home Economics*
- LOUISE BANCROFT, B.S., *Assistant Professor of Home Economics*
- ELMER REEVE HITCHNER, M.S., *Assistant Professor of Bacteriology*
- CHAUNCEY WALLACE LORD CHAPMAN, M.S., *Instructor in Forestry*
- LEIGH PHILBROOK GARDNER, B.S., *Instructor in Animal Industry*
- HAROLD CLAYTON SWIFT, B.S., *Instructor in Agronomy*
- WALTER WENTWORTH WIGGIN, B.S., *Instructor in Horticulture*
- EDWIN DILLMON HULL, M.S., *Instructor in Biology*
- FLORENCE JULIA MORRILL, B.S., *Instructor in Home Economics*
- HELEN WOODBRIDGE, M.S., *Instructor in Biology*

### GENERAL INFORMATION

The College of Agriculture comprises the departments of Agricultural Education, Agronomy, Animal Industry, Biological and Agricultural Chemistry, Biology, Farm Management and Agricultural Engineering, Forestry, Home Economics, Horticulture, Veterinary Science and

Bacteriology, and Agricultural Extension. The aim of this college is to train young men for service as farmers, teachers of agriculture and the allied sciences in schools and colleges, investigators in agricultural experiment stations, and foresters; and to prepare young women to become teachers of home economics and to comprehend the problems of administration in the home and in public institutions. On entering either a four-year curriculum or the two-year School Course in Agriculture a student is required to fill out a practical experience blank. Those who have not had experience in general farming are required to work during at least one summer vacation on some farm approved by the faculty of the college.

The college curricula are designed for those who wish to follow general farming, animal husbandry, dairy husbandry, poultry husbandry, horticulture, home economics, chemistry as related to experiment station work, biological chemistry, bacteriology and veterinary science, biology, farm management, and forestry either as a business or as a profession.

The courses of instruction are organized as follows:

#### 1. REGULAR CURRICULA

The four-year general curricula in Agricultural Education.

Agronomy, Animal Husbandry, Biology, Dairy Husbandry, Forestry, Home Economics, Horticulture, and Poultry Husbandry

The two-year School Course in Agriculture

#### 2. SHORT COURSES

The short winter courses in General Agriculture, Dairying, Horticulture, and Poultry Management  
Farmers' Week

#### 3. EXTENSION COURSES

The correspondence courses

The lecture courses

Movable or extension schools

## CURRICULA IN AGRICULTURE

Certain studies are fundamental to all work in agricultural lines. As many as possible of these subjects are offered in the first two years, during which the student is necessarily given no choice of subjects. By the beginning of the junior year each student must decide whether he is to specialize in Agricultural Education, Agronomy, Animal Husbandry, Dairy Husbandry, Poultry Husbandry, Horticulture, or Biology. To specialize in any one of these lines, he must during his junior and senior years take the studies given in the schedules which follow.

Students in agriculture who contemplate entering experiment station work should elect the course offered by the department of agricultural chemistry covering the qualitative and quantitative chemical analysis of fodders, fertilizers, and dairy products. They should also elect a preparatory course in quantitative chemical analysis.

The elective subjects are selected with the advice of the major instructor.

Before receiving their degrees candidates must satisfy the faculty that they are familiar with the methods of conducting operations incident to general farming. This does not apply to students who major in Biology, Forestry, and Home Economics.

One of the following curricula, embracing 150 college hours each, is required for the students pursuing a four-year curriculum in the College of Agriculture. On completion of such a curriculum, the student will receive the degree of Bachelor of Science (B.S.).

### Curriculum for the First Two Years for All Students Taking Four-Year Curricula in Agriculture

#### FRESHMAN YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Agronomy 11, 2 †2.....	3	Animal Industry 2.....	2
Chemistry 1 or 3.....	2	Animal Industry 4, †2.....	1
Chemistry 5 or 7, †2.....	1	Botany 2, 2 †4.....	4
Drawing 9, *3.....	1	Chemistry 2 or 4.....	2
English 1.....	3	Chemistry 6 or 8, †4.....	2
Military 1, *3.....	1½	Drawing 10, *3.....	1
Physical Training 1.....	½	English 2.....	3
Poultry Husbandry 1, 2 †2....	3	Military 2, *3.....	1½
Zoology 1, 2 †4.....	4	Physical Training 2.....	1
		Poultry Husbandry 2, 1 †2..	2

## SOPHOMORE YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Agronomy 1, 2 *3.....	3	Agronomy 12, †4.....	2
Animal Industry 3.....	2	Biochemistry 2, 3 †4.....	5
Animal Industry 5, †2.....	1	Biology 8, 2 †4.....	4
Biochemistry 1.....	2	Horticulture 2, 2 *3.....	3
Biochemistry 9, 2 †2.....	3	Mathematics 12.....	2
Biology 7.....	2	Military 2, *3.....	2
Mathematics 11.....	3	Options:	
Military 1, *3.....	2	Agricultural Chemistry 6..	2
Options:		or	
Animal Industry 7, 2 †4....	4	Horticulture 20, 2 †2.....	3
or			
Horticulture 1, 2 †2.....	3		

## Curriculum for Students Specializing in Agricultural Education

## JUNIOR YEAR

Agronomy 13, 1 †2.....	2	Agricultural Chemistry 6...	2
Animal Industry 7, 2 †4.....	4	or	
or		Horticulture 20, 2 †2.....	3
Horticulture 1, 2 †2.....	3	Animal Industry 6.....	2
Bacteriology 1, †6.....	3	Education 78.....	3
Bacteriology 3.....	2	Farm Management 72, 2 *3..	3
Education 55.....	3	Forestry 2.....	2
English 5.....	2	Mechanical Engineering 6 *3	1
Horticulture 9, 2 †2.....	3	Veterinary Science 14.....	3
		Veterinary Science 16.....	1

## SENIOR YEAR

Agricultural Education 3, 2 †2	3	Agricultural Education 4....	4
Agronomy 3.....	2	Agricultural Education 6....	2
Farm Management 71, 2 *3...	3	Farm Management 2, †4....	2
Farm Management 73, 2 †2...	3	Farm Management 74, 2 *3	3
Mechanical Engineering 5, *3..	1	Rural Sociology 82.....	2
Elective .....	7	Elective .....	3

## Curriculum for Students Specializing in Agronomy

## JUNIOR YEAR

*Fall Semester*

Subject	Hours
Agronomy 15, 1 †2.....	2
*Animal Industry 7, 2 †4.....	4
Bacteriology 1, †6.....	3
Bacteriology 3.....	2
Biology 9, 2 †6.....	5
English 5.....	2
Elective .....	2

*Spring Semester*

Subject	Hours
*Agricultural Chemistry 6..	2
Agronomy 14, 1 †2.....	2
Agronomy 16, 1 †2.....	2
Agronomy 18.....	2
Animal Industry 6.....	2
Biology 10, 2 †6.....	5
Elective .....	5

## SENIOR YEAR

Agronomy 3.....	2	Farm Management 2, †4....	2
Agronomy 13, 1 †2.....	2	Farm Management 72, 2 *3..	3
Farm Management 71, 2 *3....	3	Farm Management 74, 2 *3..	3
Elective .....	10	Elective .....	9

## Curriculum for Students Specializing in Animal Industry

## ANIMAL HUSBANDRY

## JUNIOR YEAR

*Animal Industry 7, 2 †4.....	4	*Agricultural Chemistry 6..	2
Bacteriology 1, †6.....	3	Animal Industry 6.....	2
Bacteriology 3.....	2	Animal Industry 52, †2.....	1
Biology 51, 2 †4.....	4	Bacteriology 52, 1 †4.....	3
English 5.....	2	Biology 52, 2 †4.....	4
Elective .....	4	Veterinary Science 14.....	3
		Veterinary Science 16.....	1
		Elective .....	3

## SENIOR YEAR

Agronomy 3.....	2	Animal Industry 54.....	2
Animal Industry 53.....	2	Farm Management 2, †4....	2
Farm Management 71, 2 *3....	3	Farm Management 72, 2 *3..	3
Veterinary Science 15.....	2	Elective .....	1
Veterinary Science 17.....	1		
Veterinary Science 19.....	2		
Elective .....	6		

\*If not already taken in the sophomore year.

## DAIRY HUSBANDRY

## JUNIOR YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
*Animal Industry 7, 2 †4.....	4	*Agricultural Chemistry 6..	2
Bacteriology 1, †6.....	3	Animal Industry 6.....	2
Bacteriology 3.....	2	Animal Industry 8, 1 *6....	3
English 5.....	2	Bacteriology 52, 1 †4.....	3
Elective .....	8	Veterinary Science 14.....	3
		Veterinary Science 16.....	1
		Elective .....	6

## SENIOR YEAR

Agronomy 3.....	2	Bacteriology 54, †4 or †6..	2 or 3
Animal Industry 9, 2 *6.....	4	Farm Management 2, †4....	2
Animal Industry 51.....	3	Farm Management 72, 2 *3..	3
Farm Management 71, 2 *3....	3	Elective.....	10 or 9
Veterinary Science 15.....	2		
Veterinary Science 17.....	1		
Elective .....	3		

## Poultry Husbandry

## JUNIOR YEAR

*Animal Industry 7, 2 †4.....	4	*Agricultural Chemistry 6..	2
Bacteriology 1, †6.....	3	Animal Industry 6.....	2
Bacteriology 3.....	2	Biology 52, 2 †4.....	4
Biology 51, 2 †4.....	4	Poultry Husbandry 4.....	2
English 5.....	2	Elective .....	9
Poultry Husbandry 3, 1 †2....	2		
Elective .....	2		

## SENIOR YEAR

Agronomy 3.....	2	Farm Management 2, †4....	2
Farm Management 71, 2 *3....	3	Farm Management 72, 2 *3..	3
Poultry Husbandry 5.....	2	Poultry Husbandry 6, 3 †2..	4
Poultry Husbandry 7, 2 †2....	3	Veterinary Science 12.....	2
Elective .....	8	Elective .....	7

\*If not already taken in the sophomore year.



## Curriculum for Students Specializing in Horticulture

## JUNIOR YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Bacteriology 3.....	2	Agricultural Chemistry 6...	2
Biology 9, 2 †6.....	5	Animal Industry 6.....	2
English 5.....	2	Bacteriology 2, †6.....	3
*Horticulture 1, 2 †2.....	3	Biology 10, 2 †6.....	5
*Horticulture 21, 2 †2.....	3	*Horticulture 20.....	3
Horticulture 9, 2 †2.....	3	Elective.....	7 or 6
Elective.....	1 or 4		

## SENIOR YEAR

Agromony 3.....	2	Farm Management 2, †4....	2
Farm Management 71, 2 *3....	3	Horticulture 50.....	2
Horticulture 3, 2 †2.....	3	Horticulture 8, 2 †2.....	3
Horticulture 5, 2 †2.....	3	Horticulture 52 .....	1
Horticulture 7, 2 †2.....	3	Elective .....	10
Horticulture 51.....	1		
Elective.....	3 or 6		

## Curriculum in Biology

## JUNIOR YEAR

Bacteriology 3.....	2	Bacteriology 2, †6.....	3
English 5.....	2	English 10.....	2
Biology 5.....	3	Modern Language.....	2
Modern Language.....	3	Animal Embryology 52..	} 4
Ant Histology 61.....	} 4	or	
or		Plant Physiology 62.....	} 3
Vertebrate Morphology 51	} 3	Forest Pathology 66.....	
Elective .....		or	} 4
		Elective .....	
		Elective .....	4

† If not already taken in the sophomore year.  
 \* Must be taken following Horticulture 20.

## SENIOR YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Animal Physiology 53.....	4	Animal Embryology.....	4
or Plant Taxonomy and Morphology 63.....		or Plant Physiology.....	
Biology Seminar.....	1	Animal Histology 54....	3 or 4
Thesis or Elective.....	3	or Forest Pathology 66	
Vertebrate Morphology 51	4	or Elective	1
or Plant Histology 61.....		Biology Seminar.....	
Elective .....	6½	Thesis or Elective.....	3
		Elective.....	6 or 7

## CURRICULUM IN FORESTRY

Only the four year undergraduate course is offered in Forestry. The curriculum for this course follows. It is arranged to meet the requirements of the National Committee of the Conference of Forest Schools, on Standardization of Instruction in Forestry. Completion of the curriculum leads to the degree of Bachelor of Science in Forestry. It will enable the graduate to qualify for technical and administrative positions in professional forestry work, and will admit to advanced standing in post-graduate schools of forestry of high standing, if further and more advanced work is desired.

It will also make a student eligible for the Civil Service examinations for the position of Forest Assistant in the United States Forest Service.

Owing to the wide field covered by the curriculum both in arts and sciences, as well as in technology, it offers an excellent basis for a broad and liberal education.

The first two years are given very largely to fundamental and auxiliary subjects, which are basic for a proper understanding of the more highly specialized work in technical forestry in the last two years.

Instruction in the department consists of lectures, recitations, laboratory and field work, the latter consuming a considerable portion of the scheduled time during the junior and senior years.

## FRESHMAN YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Chemistry 1 or 3.....	3	Botany 2, 2 †4.....	4
Chemistry 5 or 7, †2.....	1	Chemistry 2 or 4.....	2
Drawing 1, *6.....	2	Chemistry 6 or 8, †4.....	2
English 1.....	3	Drawing 2, *6.....	2
Forestry 1.....	2	English 2.....	3
Mathematics 11.....	3	Mathematics 2.....	2
Military 1, *3.....	1½	Mathematics 12.....	2
Zoology 1, 2 †4.....	4	Military 2, *3.....	1½
Physical Training.....	½	Physical Training.....	1

## SOPHOMORE YEAR

Agronomy 1, 2 *3.....	3	Biology 8, 2 †4.....	4
Biology 67, 2 †4.....	4	Biology 68, 2 †4.....	4
Civil Engineering 1 and 7.....	3½	Civil Engineering 2.....	1
Economics 1b.....	2	Civil Engineering 4.....	1½
English 5.....	2	Economics 2b.....	2
Military 1, *3.....	2	English 10.....	2
Elective .....	3	Forestry 10.....	1
		Military 2, *3.....	2
		Elective .....	3

## JUNIOR YEAR

Biology 61, 2 †4.....	4	Biology 62, 2 †4.....	4
Civil Engineering 21.....	1	Civil Engineering 22.....	1
Civil Engineering 23.....	1	Civil Engineering 24.....	1
Civil Engineering 27.....	1	Forestry 4.....	1
Forestry 11.....	2	Forestry 6.....	2
Forestry 13, *6.....	2	Forestry 8, *6.....	2
Geology 5.....	3	Forestry 28.....	1
Horticulture 5, 2 †2.....	3	Physics 10.....	3
Elective .....	2	Elective .....	4

## SENIOR YEAR

Forestry 3.....	2	Biology 66, 2 †2.....	3
Forestry 5.....	1	Forestry 12.....	2
Forestry 9.....	1	Forestry 14, *6.....	2
Forestry 15.....	2	Forestry 16.....	2
Forestry 17, *6.....	2	Forestry 18, *6.....	2
Forestry 19.....	2	Forestry 20.....	2
Forestry 21, *6.....	2	Forestry 22.....	1
Elective .....	5	Elective .....	3

## CURRICULUM IN HOME ECONOMICS

This curriculum leads to the degree of Bachelor of Science (in Home Economics). In addition to the prescribed studies, elective courses are offered for those who plan to teach.

Students desiring to follow this curriculum must meet the regular university requirements.

Students taking courses 5, 6, 10, and 11 are required to wear in the laboratory white waists, washable ties, shoes with rubber heels, and white aprons with bibs. They must also be provided with small white hand towels and holders.

### FRESHMAN YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Chemistry 1 or 3.....	3	Chemistry 2 or 4.....	2
Chemistry 5 or 7, †2.....	1	Chemistry 6 or 8, †4.....	2
English 1.....	3	English 2.....	3
History 7.....	3	History 8.....	3
Home Economics 1, 2 †4.....	4	Home Economics 2, 2 †4....	4
Home Economics 3, 1 †2.....	2	Home Economics 4, 1 †4....	3
Home Economics 13, †4.....	2	Physical Training 2, †2.....	1
Physical Training 1, †2.....	½		

### SOPHOMORE YEAR

Art 11.....	2	Art 12.....	2
Biochemistry 9, 2 †2.....	3	Food Analysis 8, †6.....	3
Physiology 5, 2 †4.....	4	Botany 2, 2 †4.....	4
English 3.....	3	English 4.....	3
Home Economics 5, 2 †4.....	4	Home Economics 6, 2 †4....	4
Psychology 49.....	3	Psychology 50.....	3

### JUNIOR YEAR

Bacteriology 1, †6.....	3	Physics 8, 4 †2.....	5
Bacteriology 3.....	2	Home Economics 8, †6.....	3
Biochemistry 7, 3 †4.....	5	Home Economics 10, 3 †4..	5
Home Economics 7, 2 †4.....	4	Home Economics 14.....	3
Home Economics 9.....	3	Elective .....	3
Elective .....	3		

## SENIOR YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Home Economics 17, 1 †4....	3	Home Economics 12.....	4
Sociology 55.....	3	Home Economics 18, 1 †4..	3
Economics 1b.....	2	Sociology 56.....	3

Home Economics 21 or 22, \*9—3 credit hours required in either fall or spring semester.

Electives 16 credit hours for the year.

Students desiring to secure the Professional Secondary Certificate must complete 6 hours of psychology and 12 hours of education as follows: Ed 51 or 52, 77 or 78, and 6 hours elective. All work must be of grade C or above.

### Special Courses in Agriculture and Home Economics

The Special Courses in Agriculture and Home Economics are designed for young men and women who cannot well spend four years in preparation, but who desire to secure special training in this line. No fixed schedule of studies is prescribed, but students may elect along the line of horticulture, dairying, poultry management, veterinary science, agricultural chemistry, bacteriology, farm management, general agriculture, or home economics.

Persons not candidates for a degree who desire to take special studies may be permitted to do so, if, upon examination, they give satisfactory evidence that they are prepared to pursue them. This privilege is intended for students of unusual maturity or previous advancement in particular subjects, and not for those who are incompetent to pursue a regular course. If they subsequently desire to become candidates for a degree, they will be required to meet all the entrance requirements.

The annual expenses for courses of one year or more are the same as those for students in the four-year curricula.

### Two-year School Course in Agriculture

This is a course designed to train young men and women who wish to become practical farmers, farm superintendents, dairymen, poultrymen, or gardeners, but who cannot devote time to high school or college training.

The same equipment is used as in the four-year curricula, but the work is of a more elementary nature. All the classes are separate and distinct from the four-year classes, and in no case will college credit be allowed for work done in the School Course.

There are no entrance examinations required of those who desire to enter the School Course. Students over fifteen years of age who are prepared for advanced grammar or high school work are eligible for registration.

The practical side of this work is strongly emphasized, and since students are expected to be able to do work and handle men, those taking this course are required to spend the summer vacation between the first and second years in work either at the college or on some farm approved by the faculty.

On completion of the course a certificate is awarded those who have satisfactorily done the work.

#### FIRST YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Animal Husbandry, 3 †2.....	4	Dairy Husbandry, 3 *3.....	4
Business Arithmetic and Farm Accounts.....	2	English .....	3
Forge Work, *3.....	1	Farm Botany.....	2
English .....	3	Carpentry, *3.....	1
Farm Crops, 3 *3.....	4	Fruit Growing, 3 *3.....	4
Fruit Handling, 3 *3.....	4	Poultry Husbandry, 2 †2....	3
Poultry Husbandry, 2 †2.....	3	Soils and Fertilizers, 3 *3..	4

#### SECOND YEAR

Animal Husbandry, 3 †2.....	4	Animal Husbandry, 3 †2....	4
English .....	2	English .....	2
Farm Chemistry.....	3	Farm Management, 3 *3....	4
Farm Crops.....	2	Forestry .....	2
Farm Engineering and Mechanics, 1 *3.....	2	Insects .....	2
Poultry Husbandry.....	2	Poultry Husbandry.....	2
Vegetable Gardening, 3 *3....	4	Small Fruit Culture and Plant Propagation, 3 *3....	4
Veterinary Science.....	3	Veterinary Science.....	3

### Short Winter Courses in General Agriculture, Dairying, Horticulture, and Poultry Management

The short courses in general agriculture deal especially with farm crops. Special attention is given to the potato, corn, oat, and hay crops,—the preparation of seed bed, selection of seed, seeding, fertilization, culture, and harvesting. Such general subjects as drainage, maintenance of



soil fertility, rotation of crops, control of weeds, etc., are considered. Potato, corn, and grain judging is made a prominent feature.

The short course in dairying is designed to meet the requirements of creamery assistants, practical farmers, herdsman, and others who desire to learn milk testing, butter making, the principles of animal nutrition, and practices of feeding, breeding, judging stock, and the diseases of farm animals.

The short course in horticulture is offered for those who wish to acquaint themselves with the most approved methods of orchard management. Special attention will be given to such subjects as the selection of orchard sites, selecting and obtaining nursery stock, pruning, cultivation, spraying, packing, and cooperation in the fruit business. Opportunity will be given for the laboratory study of spraying, packing, planting, pruning, and grafting. An effort is made to show where money is lost and made in the fruit business.

The short course in poultry management is given each year to aid persons who wish to gain a practical knowledge of the handling of incubators and brooders, the feeding and rearing of young chicks, the general management of mature fowls, scoring, judging, killing, and marketing. For purposes of instruction the College of Agriculture keeps representatives of leading breeds of fowls.

Very few text-books are used in any of the courses and the expenses for board and room, which are the only other expenses, are moderate. Circulars giving the dates and programs of these courses are published each year and will be sent upon application to the College of Agriculture.

### Farmers' Week

There are a large number of people who cannot come to the college for a great length of time, but who desire a few days of practical instruction. To reach and accommodate these, "Farmers' Week" is held. Lectures on practical agricultural subjects are given morning, afternoon, and evening. Practical demonstrations occupy a part of each afternoon. Besides the practical subjects discussed, one or more sessions are given up to problems of rural betterment. A section is arranged where home economics for farmers' wives is taught. Dates and programs may be secured each year by addressing the College of Agriculture.

### Department of Agricultural Extension

This department offers correspondence courses, lecture courses, demonstration work, cooperative experiments, and extension schools in agriculture.

This work is intended to give direct help to those on the farm and in the home; to aid those who desire definite instructions in practical agri-

culture, animal and dairy husbandry, poultry husbandry, home economics, forestry, and horticulture. It supplements the teaching and experimenting of the College of Agriculture and the Agricultural Experiment Station. It is professedly a popular work because it endeavors to aid the farmer to solve the practical problems of the farm, to quicken agricultural work and to inspire greater interest in country life.

### *Correspondence Courses*

These courses are given by means of text-books and publications of the college, the U. S. Department of Agriculture, or the various experiment stations. The text-books are furnished at publishers' prices. The courses are free and may be taken by individuals, granges, reading circles, or other organizations. A certificate will be given to students completing any of these courses with satisfactory standing.

The following courses are offered:

Course 1—Farm Crops and Crop Production

Course 2—Farm Management

Course 3—Feeding and Breeding of Farm Animals and Dairying

Course 4—Poultry Keeping

Course 5—Fruit Growing

Course 7—Elementary Agriculture

Course 8—Home Economics

Course 9—Vegetable Gardening

Course 10—The Business of Dairying

### *Lecture Courses*

Lectures in these courses are given under the auspices of granges, clubs, societies, and other gatherings by the members of the agricultural faculty.

A complete list of the lectures will be forwarded on request.

## **Extension Schools in Agriculture**

To extend the advantages of agricultural instruction to persons actively engaged in agriculture, the Extension Department will conduct a limited number of three-day schools in various parts of the State.

## **Correspondence**

Besides the Demonstration, Correspondence, and Lecture Courses, the College of Agriculture welcomes correspondence on practical farm topics.

If information is desired along lines relating to crops, fertilizers, dairy work, feeding, or orcharding and gardening, the various instructors are ready to give such assistance as they are able.

A free "Extension Bulletin," dealing with agricultural and home economics subjects, is issued at frequent intervals thruout the year. This bulletin is sent to all persons whose names appear on the bulletin mailing list and to such other persons as may apply for it.

Circulars giving full information upon these subjects will be sent upon request.

## Departments of Instruction

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NOTE.—A star (\*) before the time designated for a course indicates that three hours of actual work are required to obtain credit for one hour; a dagger (†) indicates that two hours are required to obtain this credit. *Courses having an odd number are given in the fall semester and those having an even number in the spring semester.*

If the student so elects, he may prepare a thesis upon some subject related to his major work. The subject should be selected and approved by the head of the department before the close of the junior year.

Courses numbered 1-50 are for undergraduates only; courses numbered 50-100 are for graduates and undergraduates; courses numbered 100 and above are primarily for graduates.

### AGRICULTURAL EDUCATION

PROFESSOR HILL

NOTE.—The passage of the Smith-Hughes bill has greatly stimulated the introduction of agricultural courses in secondary schools. No one is eligible to teach these courses unless he has taken an approved teacher-training course. There are two such teacher-training courses in the College of Agriculture.

The first course is designed for those who wish to specialize in agricultural education. It leads to the degree of B. S. in Agricultural Education. The curriculum for agricultural education may be found on a preceding page, along with the other curricula.

The second course is designed for those who wish to specialize in some other line than agricultural education. Such students will major in another department, but will take their electives from the curriculum in Agricultural Education. The following electives must be taken by all students regardless of their major subject: Education 55, Education 78, Agricultural Education 3, Agricultural Education 4, Agricultural Education 8, Mechanical Engineering 5, Mechanical Engineering 6, Rural Sociology 82, Forestry 2, Horticulture 1, Horticulture 9, Horticulture 20, Farm Management 74, Animal Industry 7.

Students who elect either of the teacher-training courses must have had at least two years of practical farm work since their fourteenth birthday. One of these years must include all the year round experience. Experience on the home farm while attending school satisfies the requirement. Those who do not meet this requirement of practical experience

will be allowed to take the course only with the understanding that they will be expected to get this experience before they will be allowed to teach.

3. SPECIAL METHODS IN TEACHING AGRICULTURE.—The following topics are given consideration: The Smith-Hughes Act; the agricultural curriculum; seasonal sequence of topics; lesson plans; supervised study; laboratory work; field trips; room and equipment; supervised practical work; records. Class room, *two hours a week*; laboratory, *†two hours a week*.

4. PRACTICE TEACHING.—During the first six weeks of the spring semester the seniors will be expected to do directed teaching in an approved school. They will hand in daily lesson plans and will report on how these work out. While engaged in this work they will be given an allowance to pay for their traveling expenses and board. *Four hours credit*.

6. PRINCIPLES OF AGRICULTURAL EDUCATION.—This course deals with the history of agricultural education; a study of the purposes of agricultural education; types of schools; the rural school; consolidation of schools; the agricultural college; the extension service; prevocational agriculture, etc. Class room, *two hours a week*.

8. PRACTICE TEACHING.—This course is for those who are majoring in other departments. It calls for observation of teaching and also for directed teaching in an approved school. *Two hours credit*.

## AGRONOMY

PROFESSOR SIMMONS; ASSISTANT PROFESSOR HELMICK; MR. SWIFT

### Soils

1. SOILS.—Lectures and recitations on the origin, types, physical properties, moisture content, and distribution of soils, and their relation to crop production. The fundamental principles underlying soil management for soil conservation and improvement will be studied. Class room, *two hours a week*; laboratory, *\*three hours a week*.

3. SOIL FERTILITY.—This course deals with stable manures, green manures, commercial fertilizers, and soil amendments; also a study of soil organisms as affecting the plant food in the soil. *Two hours a week*.

52. SOIL SURVEYING AND MAPPING.—A study is made of soil types, the principles of correlation and methods of soil surveying and mapping. Class room, *two hours a week*; laboratory, *\*three hours a week*.

54. SOIL FERTILITY.—Soil improvement investigation. A review of the experimental work in this country and abroad. The application of these results to soil improvement and crop production problems. Prerequisites, Courses 1 and 3. *Two hours a week*.

## Crops

11. FIELD CROPS.—A general course including a study of the most important cereal, grass, forage, and root crops, their adaptation to systems of rotation, culture and uses, with special reference to New England conditions. Class room, *two hours a week*; laboratory, †*two hours a week*.

12. FIELD CROPS.—A laboratory course in seed and grain identification, improvement by grading, testing, selecting, and preparing seed for planting. A collection of weeds and their seeds will be required. †*Four hours a week*.

13. FIELD CROPS. JUDGING AND COMMERCIAL GRADING.—Comparative judging of corn, small grains, and potatoes, according to standards. A study of market grade requirements. Class room, *one hour a week*; laboratory, †*two hours a week*.

14. FIELD CROPS. CORN.—A course dealing with the production of corn and the care and marketing of the crop. Types and varieties of both field and sweet corn will be considered in this course. Class room, *one hour a week*; laboratory, †*two hours a week*.

15. FIELD CROPS. ROOTS AND TUBERS.—A course dealing with the production, storage, and marketing of roots and tubers. Class room, *one hour a week*; laboratory, †*two hours a week*.

16. FIELD CROPS. GRASSES AND FORAGE CROPS.—Lectures and laboratory work dealing with the grasses and forage plants. A study of the hay crop and markets; soiling systems, and their adaptation to local conditions. Class room, *one hour a week*; laboratory, †*two hours a week*.

18. FIELD CROPS. CROP IMPROVEMENT.—A study of the principles and methods involved in field crop improvement. The work of experiment stations in this country and abroad is reviewed. Prerequisites, Courses 11 and 12. *Two hours a week*.

62. SYSTEMATIC FIELD CROPS.—A course designed for advanced or graduate students preparing for experimental work, teaching, or plant breeding. Students will be expected to grow and collect material under the supervision of the department during the summer months. Prerequisite, adequate training in botany and field crops. Time must be arranged with the instructor not later than the middle of the junior year. *Two or more hours a week*.

63. SYSTEMATIC FIELD CROPS.—A continuation of Course 62. *Two or more hours a week*.

65. SEMINAR.—A study of recent literature, problems, and experiments pertaining to agronomy and farm management. *One hour a week*.

66. SEMINAR.—A continuation of Course 65. *One hour a week*.

67, 68. THESIS.—*Three hours a week*.



## ANIMAL INDUSTRY

PROFESSOR CORBETT; ASSISTANT PROFESSOR DORSEY; MR. GARDNER

### Animal and Dairy Husbandry

2. TYPES AND BREEDS OF FARM ANIMALS.—A study of the types and breeds of farm animals. A course covering the history, development, and characteristics of farm animals. *Two hours a week.*

3. CARE, FEED, AND MANAGEMENT OF LIVE STOCK.—A course dealing with the selection, breeding, growing, and maintenance of horses, cattle, sheep, and swine. Prerequisites, Courses 2 and 4. *Two hours a week.*

4. LIVE STOCK JUDGING.—This course is designed to acquaint the students with the types and breed characteristics of farm animals, by use of the score card, comparative judging, and the selection of breeding stock. To be taken in connection with Course 2. †*Two hours a week.*

5. LIVE STOCK JUDGING.—A continuation of Course 4. †*Two hours a week.*

6. LIVE STOCK FEEDING.—A study of the general principles of nutrition as applied to live stock, composition of feed stuffs, comparison and use of feeding standards, calculating rations, methods of feeding for economic production. Prerequisites, Course 3, Biochemistry 1 and 2. *Two hours a week.*

7. GENERAL DAIRYING.—Given by lectures, assigned reading, recitations, and laboratory practice. Milk; its secretion, composition, properties, pasteurization, separation; dairy practices in handling milk and cream, dairy equipment, use of common dairy machinery; preparation of starters; test of dairy products for fat (Babcock method), acidity, total solids, common adulterations, and preservatives. Class room, *two hours a week*; laboratory, †*four hours a week.*

8. BUTTER MAKING.—Lectures and laboratory practice in starter making, cream ripening, churning, and preparing butter for market. Prerequisite, Course 7. Class room, *one hour a week*; laboratory, †*six hours a week.*

9. CHEESE MAKING.—Lectures, recitations, and laboratory practice in the manufacture and curing of various types of cheese, including Cheddar and soft cheeses adapted to the New England trade. The laboratory work requires six consecutive hours. Prerequisite, Course 7. Class room, *two hours a week*; laboratory, \**six hours a week.*

51. DAIRY TECHNOLOGY.—A study of dairy products; dairy by-products; factory machinery and operations; certified milk; markets and marketing; educational work with dairymen. Given by lectures, recita-

tions, assigned readings, and round table conferences. Prerequisite, Course 7. *Three hours a week.*

52. **ADVANCED LIVE STOCK JUDGING AND MANAGEMENT.**—A laboratory course in which the individual student gets experience in handling live stock and preparation of stock for the show ring and market. As far as possible, visits will be made to live stock farms. †*Two hours a week.*

53. **ADVANCED LIVE STOCK FEEDING AND MANAGEMENT.**—Nutrition and feeding experiments, as well as the methods and practices of the most successful feeders in the production of milk, meat, and the rearing of horses, are studied. *Two hours a week.*

54. **ADVANCED ANIMAL BREEDING.**—Principles and theories of breeding as applied to the live stock industry; study of pedigrees and records by the use of the different herd books; an economic study of the generative systems of domestic animals. Prerequisites, Course 3, and Veterinary Science 6. *Two hours a week.*

55, 56. **THESIS.**—*Three hours a week.*

58. **ICE CREAM MAKING.**—Lectures and recitations on the history and methods of the manufacture of ice cream and ices. Laboratory practice in the manufacture of ice cream and ices. Prerequisite, Course 51. Class room, *one hour a week*; laboratory, *three hours a week.*

## Poultry Husbandry

1. **TYPES, BREEDS, AND MANAGEMENT OF POULTRY.**—Lectures and recitations on the origin and development of the types, breeds, and varieties of fowl, ducks, geese, and turkeys; the general care, feed, and management of farm poultry; and the marketing of poultry products. Laboratory exercises include practice in poultry management, poultry judging, and the preparation of poultry products for market. Class room, *two hours a week*; laboratory, †*two hours a week.*

2. **TYPES, BREEDS, AND MANAGEMENT OF POULTRY.**—A continuation of Course 1. Class room, *one hour a week*; laboratory, †*two hours a week.*

3. **COMMERCIAL POULTRY FARMING.**—Lectures and recitations on the business of poultry farming; the systems and operations in use on large poultry farms; the planning of specialized poultry farms. Class room, *one hour a week*; laboratory, †*two hours a week.*

4. **POULTRY FEEDING.**—Lectures and recitations on the general principles of nutrition as applied to poultry; poultry feeds; calculating rations; estimating cost of feeds and feeding, and methods of feeding for economical production. Prerequisites, Courses 1 and 2. Class room, *two hours a week.*

5. **POULTRY LITERATURE.**—A study of experimental data on poultry management. Prerequisites, Courses 1, 2, and 4. Class room, *two hours a week*.

6. **INCUBATION AND BROODING.**—Lectures and recitations on the principles of incubation and brooding. Laboratory practice in incubator and brooder management. Prerequisites, Courses 1 and 2. Class room, *three hours a week*; laboratory, *†two hours a week*.

7. **POULTRY BREEDING.**—Lectures and recitations on the principles of breeding as applied to poultry; the inheritance of egg productivity; systems of breeding; mating of utility and exhibition poultry and care of breeding stock. Prerequisites, Courses 1, 2, and 4. Class room, *two hours a week*; laboratory, *†two hours a week*.

51, 52. **THESIS.**—*Three hours a week*.

## BACTERIOLOGY AND VETERINARY SCIENCE

PROFESSOR RUSSELL; ASSISTANT PROFESSOR HITCHNER

1. **BACTERIOLOGY.**—A laboratory course in general bacteriology. Open to all students. The work includes the preparation of the usual culture media and the study of the morphological and biological characteristics of typical bacteria. Some outside reading will be required. Required of students taking major work in Agriculture. *†Six hours a week*.

2. **BACTERIOLOGY.**—Similar to Bacteriology 1. Offered for students in the College of Technology and others who may elect it. *†Six hours a week*.

3. **BACTERIOLOGY.**—A lecture course open to all students. It should be elected by students taking Course 1 as well as by students not taking a laboratory course. Subjects considered will include the history of bacteriology; classification and biological characteristics of bacteria, bacteria in air, water, soil, and dairy products; the relation of bacteria to health and disease; immunity. *Two hours a week*.

12. **VETERINARY SCIENCE.**—This course deals with the anatomy, physiology, and diseases of poultry. *Two hours a week*.

14. **VETERINARY SCIENCE.**—A combined lecture and laboratory course dealing with the anatomy and physiology of our domestic animals, and their treatment to preserve and restore health. *Three hours a week*.

15. **VETERINARY SCIENCE.**—A continuation of Course 14. Prerequisite, Course 14. *Two hours a week*.

16, 17. **VETERINARY SCIENCE.**—A clinic open to all students studying veterinary science. *One hour a week*.

19. **VETERINARY SCIENCE.**—Veterinary materia medica and pharmacy. *Two hours a week*.

52. BACTERIOLOGY.—A study of the physiology of bacteria; bacteriological analysis of water; and investigation into the sources of milk bacteria. Prerequisite, Course 1 or 2. Class room, *one hour a week*; laboratory, *†four hours a week*.

53. BACTERIOLOGY.—A study of the physiology of bacteria; bacteriological analysis of water; and a study of soil bacteria. Prerequisite, Course 1 or 2. Class room, *one hour a week*; laboratory, *†four hours a week*.

54. BACTERIOLOGY.—A course which will consider such dairy experiments as the effect of pasturization on milk bacteria; quantitative bacterial determination of butter and cheese; study of typical milk bacteria; use of special biochemic tests for quality of milk; study of effect of separators, clarifiers, coolers, etc., on the bacterial content of milk and cream. Prerequisite, Course 52. *†Four to six hours a week*.

55. BACTERIOLOGY.—An experimental consideration of ammonification, nitrification, and denitrification in the soil; study of relation of bacteria to soil fertility; symbiosis. Prerequisite, Course 52. *†Four to six hours a week*.

56. BACTERIOLOGY.—Lectures and reference work upon various problems, relating to different phases of sanitary milk production; relation of microorganisms to butter and cheese; discussion of the effect of various dairy operations upon quality of dairy products. Open only to students taking Course 54. Prerequisite, Course 52. *Two hours a week*.

57. BACTERIOLOGY.—Lectures and reference work upon various problems relating to bacteria and soil fertility; discussion of ammonification, nitrification, and denitrification in the soil; a consideration of symbiosis. Open only to students taking Course 55. Prerequisite, Course 53. *Two hours a week*.

101, 102. BACTERIOLOGY.—This is a laboratory course for students who desire to pursue some particular line of bacteriological investigation. Open only to students who have done considerable work in bacteriology. The kind of work and the time will be arranged to suit individual students.

## BIOLOGICAL AND AGRICULTURAL CHEMISTRY

PROFESSOR MERRILL; ASSISTANT PROFESSOR SMITH

1. BIOCHEMISTRY.—Lectures and recitations on the composition of the plant; the source, nature, and assimilation of plant food; fermentation, its nature, effects, and control. *Two hours a week*.

2. BIOCHEMISTRY.—A continuation of Course 1. The composition of the animal body and of food materials; the adaptation of food to animal requirements; the chemical changes involved in the digestion and

assimilation of foods; respiration; absorption and liberation of energy. Class room, *three hours a week*; laboratory, †*four hours a week*.

3. ECONOMIC GEOLOGY.—A course in applied geology, including a general survey of our mineral resources, with special reference to the mineral fuels; the distribution and manner of occurrence of the more useful metals; the economically important nonmetallic minerals; and a study of the rocks and their uses as building stone, as road material, and as sources of lime and cement. *Two hours a week*.

5. GEOLOGY.—A study of the earth's history and development, with especial attention to dynamical, structural, and physiographical geology. *Three hours a week*.

6. AGRICULTURAL CHEMISTRY.—This course includes a study of the origin and composition of soils; the source and composition of fertilizing materials; the fixation of atmospheric nitrogen; the composition of insecticides and fungicides; the chemistry of milk and other dairy products. Prerequisite, Course 1. *Two hours a week*.

7. BIOCHEMISTRY.—An abridged course, including a study of the protein, fats, and carbohydrates, the digestive enzymes and processes, the tissues and secretions of the body. Class room, *three hours a week*; laboratory, †*four hours a week*.

8. FOOD ANALYSIS.—A brief introduction to quantitative analysis, with laboratory practice in the analysis of foods; lectures on food adulteration and methods for its detection. Laboratory, †*six hours a week*.

9. ORGANIC CHEMISTRY.—A brief course designed for students in Agriculture and Home Economics. Class room, *two hours a week*; laboratory, †*two hours a week*.

51. BIOCHEMISTRY.—Lectures and recitations on the composition of the plant; the source, nature, and assimilation of plant food; the composition of the animal body and of food materials; the adaptation of food to the animal requirements; the chemical changes involved in the digestion and assimilation of foods; respiration; absorption and liberation of energy; general metabolism; the chemical processes and methods of investigation by which these subjects are studied. Prerequisites, Chemistry 51 and 52. *Three hours a week*.

52. LABORATORY BIOCHEMISTRY.—A study of the carbohydrates, fats, and protein bodies; the digestive enzymes; the blood, muscles, bones, and other tissues of the body; milk, bile, and other secretions. A continuation of the preceding course. †*Four hours a week*.

60. AGRICULTURAL ANALYSIS.—A course in the qualitative analysis of fodders, fertilizers, milk, butter, and other dairy products. The course is designed for students desiring to take up experiment station and inspection work. Prerequisites, Chemistry 51, 52, and 61. †*Eight hours a week*.



## BIOLOGY

*The courses in this department are described under the College of Arts and Sciences.*

## FARM MANAGEMENT AND AGRICULTURAL ENGINEERING

PROFESSOR SIMMONS

2. FARM ACCOUNTING. (a) FARM MATHEMATICS.—Instruction in this subject consists in the application of its principles to all kinds of farm problems where measurements of material, extension, capacity, etc., are required.

(b) FARM RECORDS AND ACCOUNTS.—A system of records of the various operations of the farm, such as records of field labor, crop yields, milk production in the dairy, etc., a system of accounts showing the receipts and expenditures of the farm. †*Four hours a week.*

## 71. AGRICULTURAL ENGINEERING AND RURAL ARCHITECTURE.

(a) AGRICULTURAL ENGINEERING.—Farm surveying and leveling; the plotting of farms and measurements of land; a study of drainage; estimating the investment and returns from a system of drainage; the making of roads; road materials.

(b) RURAL ARCHITECTURE.—The planning, designing, location, and construction of farm buildings, water systems, sewerage, and concrete construction. Class room, *two hours a week*; laboratory, *\*three hours a week.*

72. FARM MECHANICS AND MACHINERY. (a) FARM MECHANICS.—A study of the simpler laws of mechanics as applied to farm implements and farm machinery.

(b) FARM MACHINERY.—A study of machinery used on the farm, farm power, etc. Demonstrations and tests are made with various machines and implements. Class room, *two hours a week*; laboratory, *\*three hours a week.*

73. HISTORY AND ECONOMICS OF AGRICULTURE. (a) HISTORY OF AGRICULTURE.—A history of agriculture from early times to the present day; the beginning of British agriculture, and the development of modern agriculture; the agriculture of the United States, its influence on social conditions; the importance of our leading products, and their effect on the world's commercial life; the agriculture of different sections; the development of farm machinery; progress in agricultural education. Lectures supplemented by illustrative material and slides.



(b) **ECONOMICS.**—The factors of agricultural production, and economic properties; organization of the farm; rent of farm land and the law of diminishing returns from the land; systems of distribution; a study of life in the rural communities; schools and other rural organizations. Class room, *two hours a week*; laboratory, †*two hours a week*.

74. **FARM MANAGEMENT.**—A study of the various types of farming, with comparison of investment and returns from each. A study will be made of the conditions under which extensive, intensive, and mixed systems of farming prosper or fail; laying out of fields and rotations of crops; investigation of cost of different farming operations; management of men and teams; markets and marketing. Farm surveys, with a detailed study of the condition on different farms, will be made. Farm plans will be outlined to suit various conditions. Class room, *two hours a week*; laboratory, \**three hours a week*.

76. **FARM MANAGEMENT.**—Economic study of marketing. A course that deals with the problems in the distribution of farm products which have to do with the creating of place, form, time, and possession utilities. A study is made of the share of the returns to the different factors and forces rendering service in creating these utilities. Lectures, *three hours a week*.

## FORESTRY

PROFESSOR BRISCOE; MR. CHAPMAN

1. **ECONOMICS OF FORESTRY.**—The importance and scope of the subject; the influence of forests on the conservation and distribution of water; influence on soils, topography, and public health; the relation to agriculture, stock raising, mining, railroads, manufactures, and industries in general; the character, extent and distribution of forest resources, national, state and private. Required of all freshmen majoring in forestry, and open to all students. *Two hours a week*.

2. **WOODLOT FORESTRY.**—The general principles of forestry, with special reference and application to the farm woodlands, particularly in this region. Lectures and text book work in elementary systems of cutting, estimating, protection and reforestation. Especially for agricultural students. Open to all students. *Two hours a week*.

3. **WOOD IDENTIFICATION AND USES.**—The identification and classification of the economic woods of the United States, based on simple lens inspection; the technical qualities of various species and their uses in the arts and trades; their commercial production. Prerequisite, General Botany 2. *Two hours a week*.

4. **WOOD PRESERVATION.**—The durability and seasoning of native woods; preservatives in commercial use; methods of operation and equip-

ment of preserving plants. Special attention given to posts, ties, poles, paving-blocks and structural timbers. First half of semester. *Two hours a week.*

5. HISTORY OF FORESTRY.—The development of forestry in European countries and in the United States. Second half of semester. *Two hours a week.*

6. FOREST MENSURATION.—Lectures and recitations. Instruction in the theory and application of forest measurements. Calculation and computations from data obtained in the field work. Course 8 to accompany this course. *Two hours a week.*

8. FOREST MENSURATION FIELD WORK.—Practical field work to be taken in connection with Course 6. The use of instruments, scaling and estimating. *\*Six hours a week.*

9. FOREST PRODUCTS.—Dealing with forest products other than logs and lumber, such as pulp-wood, veneers, shingles, lath, tight and slack cooperage, hoops and headings, excelsior, vehicle woods, spool stock, turpentine, tannin, gums, syrups, dye-woods, and charcoal. Methods of utilization, markets and values. First half of semester. *Two hours a week.*

10. FOREST PROTECTION.—Systems of fire protection practiced by the federal and state governments, and by individuals and associations; protection against other natural enemies of the forest such as insects, fungi, wind, animals and weed growth. First half of semester. *Two hours a week.*

11. FOREST MENSURATION.—A continuation of Course 6, taking up the study of age, growth, taper, form-factors, yield and volume tables. *Two hours a week.*

12. PRACTICE OF FORESTRY.—Applied systems of silviculture and management considered in relation to the commercially important species and types of forest in the United States; discussions of management as practiced in Europe, and of the application of such systems to forest conditions in this country. Forestry seniors only. *Two hours a week.*

13. FOREST MENSURATION FIELD WORK.—To be taken in connection with Course 11. Collection of data for making a map of an assigned tract; studies of age, growth and yield under different conditions and in various types; determination of form factors; construction of volume tables. *\*Six hours a week.*

14. FOREST MANAGEMENT.—Construction of a working plan for an assigned tract of forest land; map making for forestry work with a complete report and plans for the management of the same. Forestry seniors only. *\*Six hours a week.*

15. SILVICULTURE.—A study of silvics, the life factors determining the character and form of forest vegetation. The development of forest

types and the silvical characteristics of stands. Cultural measures in the forest; the forest regions of the United States. Prerequisites, Biology 67 and 68. *Two hours a week.*

16. SILVICULTURE.—A continuation of Course 15, with special attention to the silvicultural systems of management; the application of thinnings, methods of reproduction both natural and artificial. *Two hours a week.*

17. SILVICULTURE FIELD WORK.—Assigned problems in connection with Course 15. Studies of tolerance. Special studies and practical work in the forest; the preparation of a type map and detailed silvicultural report. *\*Six hours a week.*

18. NURSERY PRACTICE.—To be taken in connection with Course 15. Tests of the germinating qualities of seeds of forest trees, and a study of seeds and seedlings. Planting and transplanting in the State Forest Nursery (a minimum of 72 hours actual time regardless of schedule changes on account of weather); practice in field planting. *\*Six hours a week.*

19. LUMBERING.—The lumber industry in the United States considered from the economic standpoint; an account of the methods of logging and manufacture in different regions. Textbook and lectures. Forestry seniors only. *Two hours a week.*

20. FOREST FINANCE.—Business principles applied to forest management. Forest valuation; the theory of the normal forest; calculations for sustained yield and continuous revenue from forest resources; forms for accounts and cost keeping; preparation of reports for federal income tax on timber lands. Forestry seniors only. *Two hours a week.*

21. LUMBERING FIELD WORK.—To be taken in connection with Course 19. Inspection of pulp mills and lumbering operations, during the first half of the semester. Inspection, detailed study and report of an assigned typical logging operation. For credit a student must spend at least six ten hour days in a lumber camp. *\*Six hours a week.*

22. FOREST POLICY.—National and state forest policy and administration; relation of government, corporations and individuals in regard to forest policies and applied forest management. Forestry seniors only. First half of semester. *Two hours a week.*

23. CURRENT FORESTRY LITERATURE.—Reviews of periodicals, books and current forestry literature; preparation of a card index under subject and author headings. Forestry seniors only. *One hour a week.*

24. CURRENT FORESTRY LITERATURE.—A continuation of Course 23. *One hour a week.*

25, 26. **THESIS.**—Credits of from 2 to 6 hours will be allowed students desiring to elect thesis work in forestry. Work on original problems and investigations may be undertaken with the approval of the department. *Time to be arranged.*

28. **FORESTRY LAWS.**—Laws of the federal government and of the several states concerning forests and forestry. Forestry students only. Second half of semester. *Two hours a week.*

## HOME ECONOMICS

PROFESSOR FREEMAN; ASSISTANT PROFESSOR MCGINNIS; ASSISTANT PROFESSOR BANCROFT; MISS MORRILL

1, 2. **TEXTILES AND CLOTHING.**—A study of fibers and fabrics from a historic, economic, and social standpoint. The laboratory work consists of the making of plain garments, involving drafting and design, and selection of materials. Recitation, *two hours a week*; laboratory, †*four hours a week.*

3. **DESIGN.**—The object is to develop the appreciation of harmony of line, space, and color. Recitation, *one hour a week*; laboratory, †*two hours a week.*

4. **DESIGN.**—A continuation of Course 3. Recitation, *one hour a week*; laboratory, †*four hours a week.*

5, 6. **FOODS.**—A study of food composition, cost, and the principles involved in preparation. The laboratory work consists in the preparation of the various types of foods. Prerequisites, Chemistry 1 or 3, 5, 2 or 4, and 6. Recitation, *two hours a week*; laboratory, †*four hours a week.*

7. **DRESS.**—Economics, hygiene, design, and color are studied in their relation to dress. The laboratory work consists in designing and drafting of pattern, selection of materials, and the making of dresses. Prerequisites, Courses 1, 2, 3, and 4. Recitation, *two hours a week*; laboratory, †*four hours a week.*

8. **DRESS.**—A continuation of Course 7. Laboratory, †*six hours a week.*

9. **SANITATION.**—The situation of the house regarding general surroundings; sanitary conditions in and around the house, ventilation, water supply, heating, and plumbing; the householder's interest in public sanitation and hygiene. Prerequisites, Bacteriology 1 and 3. Recitation, *three hours a week.*

10. **DIETETICS.**—The chemical, economic, and physiological principles of human nutrition are studied and applied to the feeding of individuals and families under varying conditions. The course includes the study of

infant feeding and of normal and undernourished children. Prerequisites, Courses 5 and 6, and Biochemistry 7. Recitation, *three hours a week*; laboratory, *†four hours a week*.

11. **FOODS.**—Continuation of Courses 5, 6, and 10. Preservation of foods; nutrition in disease; investigation in foods, each student choosing a special problem. Recitation, *one hour a week*; laboratory, *†four hours a week*.

12. **HOUSEHOLD MANAGEMENT.**—Brief history of the family, economic and social principles of the household, standards of living, budgets, the training of children. Open to seniors. Recitations, *four hours a week*.

13. **HANDWORK.**—Problems in industrial art, basketry, knitting, embroidery, and hand sewing. Laboratory, *†four hours a week*.

14. **CHILD CARE AND CHILD WELFARE.**—A study of the physical, mental and social needs of the child, including prenatal care, post natal care, preschool age, personal hygiene, adolescent period; some problems in sex-education, the responsibility of the family and community to the child. Prerequisites, Bacteriology 1 and 3, and Biology 5. *Three hours a week*.

16. **HOME ECONOMICS EDUCATION.**—A brief survey of the education of women; the history of Home Economics and its place in education; the organization of the curriculum; planning courses of study; equipment; budgets; text books. Open to seniors. *Three hours a week*.

17, 18. **HOUSE CONSTRUCTION AND FURNISHING.**—The evolution of the house, of house furnishings, their color, design and cost. The laboratory work consists in the planning of the house, making plans and estimates for house furnishings, and visiting shops. Open to seniors. Recitation, *one hour a week*; laboratory, *†four hours a week*.

19, 20. **THESIS.**—Different phases of home economics. Individual problems. Open to seniors. *Two to four hours a week*.

21, 22. **HOUSEHOLD ADMINISTRATION.**—Each senior lives in the Practice House one semester. The students do the work including planning, buying, preparation and serving of meals; household accounts; care of the house. They also have entire charge of the care and feeding of a baby who lives in the house. *Three credit hours*.

## HORTICULTURE

PROFESSOR SWEETSER; MR. WIGGIN

1. **COMMERCIAL POMOLOGY.**—A course in methods of picking, grading, packing, storing, and marketing fruit. The laboratory work of this course will acquaint the student with the more important varieties of fruit in this State. Class room, *two hours a week*; laboratory, *†two hours a week*.



2. PRACTICAL POMOLOGY.—A study of orchard sites and soils, methods of propagating, setting, cultivating, fertilizing, pruning, and spraying. Class room, *two hours a week*; laboratory, *\*three hours a week*.

3. SYSTEMATIC POMOLOGY.—A systematic study of the types and varieties of the leading groups of fruits, their evolution and adaptation to environment; also distribution of varieties in the State. Prerequisites Courses 1 and 2. Class room, *two hours a week*; laboratory, *†two hours a week*.

5. LANDSCAPE GARDENING.—A study of the principles of landscape art and of the materials used in making landscape pictures. Special attention is given to the improvement of the home grounds. Class room *two hours a week*; laboratory, *†two hours a week*.

7. GENERAL FLORICULTURE.—A study of the culture, propagation management, and care of flowers for commercial purposes. Methods of producing, shipping, marketing, and designing, will be considered. Class room, *two hours a week*; laboratory, *†two hours a week*.

8. GREENHOUSE CONSTRUCTION.—A study of the various types of greenhouses and the methods of construction. Estimates and plans are made for houses suitable for conservatories, private estates, and commercial floriculture. Cost and methods of installing heating systems, show rooms, and storage houses are also considered. Class room, *two hours a week*; laboratory, *†two hours a week*.

9. SMALL FRUIT CULTURE.—A study of the bush and vine fruit including strawberries; adapted varieties; methods of propagation, culture, harvesting, and marketing. Class room, *two hours a week*; laboratory, *†two hours a week*.

11, 12. THESIS.—*Three hours a week*.

20. VEGETABLE GARDENING.—A course in practical vegetable growing, dealing with the production of vegetables for home use or market. Handling hot beds and cold frames will be included. Class room, *two hours a week*; laboratory, *†two hours a week*.

21. COMMERCIAL OLERICULTURE.—This course is designed to include harvesting, marketing, and systematic study of types and varieties of vegetables; also storage and care of vegetables for seed production. Prerequisite, Course 20. Class room, *two hours a week*; laboratory, *†two hours a week*.

50. PLANT BREEDING.—A course in plant breeding, as applied variation, selection and hybridization, adapted to garden and fruit crops. Prerequisite, Biology 7. *Two hours a week*.

51, 52. SEMINAR.—Preparation, presentation and discussion of horticultural problems. Special emphasis is given to problems in marketing. Required of students taking major work in horticulture. Open to all student in the university. *One hour a week*.



54. FLORICULTURE.—A course designed to give practical knowledge of the propagation and culture of annuals, herbaceous perennials, bulbs, roses, bedding plants, and other garden plants, with especial reference to care of public parks and private estates. Class room, *two hours a week*; laboratory, †*two hours a week*.

55. FRUITS AND VEGETABLES UNDER GLASS.—A study of the various fruits and vegetables that are grown under glass. A course suited to the needs of either commercial work or private estates. Prerequisite, Course 1. Class room, *two hours a week*.

56. PLANT DISEASE CONTROL.—A course designed to acquaint the student with the various kinds and types of spray machinery, and with the preparation and application of the various sprays used in disease control. Prerequisites, Courses 1 and 2. Class room, *one hour a week*; laboratory, †*two hours a week*.

## College of Arts and Sciences

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### FACULTY OF INSTRUCTION

- JAMES STACY STEVENS, M.S., LL.D., Litt. D., *Dean and Professor of Physics*
- LUCIUS HERBERT MERRILL, Sc.D., *Professor of Biological and Agricultural Chemistry*
- JAMES NORRIS HART, C.E., M.S., Sc.D., Ph.D., *Professor of Mathematics and Astronomy*
- JOHN HOMER HUDDILSTON, Ph.D., *Professor of the Greek Language and Literature and Lecturer on Art History*
- JACOB BERNARD SEGALL, Ph.D., *Professor of French*
- GEORGE DAVIS CHASE, Ph.D., *Professor of Latin*
- CAROLINE COLVIN, Ph.D., *Professor of History*
- MINTIN ASBURY CHRYSLER, Ph.D., *Professor of Biology*
- ROY MERLE PETERSON, Ph.D., *Professor of Spanish and Italian*
- ROBERT RUTHERFORD DRUMMOND, Ph.D., *Professor of German*
- HARLEY RICHARD WILLARD, Ph.D., *Professor of Mathematics*
- JOHN H ASHWORTH, Ph.D., *Professor of Economics and Sociology*
- CHARLES ANDREW BRAUTLECHT, Ph.D., *Professor of Chemistry*
- HAROLD MILTON ELLIS, Ph.D., *Professor of English*
- ALBERT LEWIS FITCH, Ph.D., *Professor of Physics*
- LUTHER JOHN POLLARD, M.A., *Professor of Education*
- HENRY MARC HALVERSON, Ph.D., *Professor of Psychology*
- IRVING HILL BLAKE, A.M., *Associate Professor of Biology*
- BERTRAND FRENCH BRANN, M.S., *Associate Professor of Chemistry*
- AVA HARRIET CHADBOURNE, M.A., *Associate Professor of Education*
- J HOWARD TOELLE, A.M., *Associate Professor of Economics and Sociology*
- FRANÇOIS JOSEPH KUENY, L. ès L., *Associate Professor of French*
- CHARLES HOWARD BATCHELDER, A.B., M.S., *Associate Professor of Zoology*
- MARK BAILEY, A.M., *Associate Professor of Public Speaking*
- JASON LESLIE MERRILL, B.S., *Associate Professor of Chemistry*
- ALBERT AMES WHITMORE, M.A., *Associate Professor of History*
- HERBERT DEWITT CARRINGTON, Ph.D., *Associate Professor of German*
- JOHN WILLIAM DRAPER, Ph.D., *Associate Professor of English*
- NOAH ROSENBERGER BRYAN, Ph.D., *Associate Professor of Mathematics*
- HARRY WOODBURY SMITH, M.S., *Assistant Professor of Biological and Agricultural Chemistry*
- ADELBERT WELLS SPRAGUE, A.M., *Director of Music*
- LEO HENRY DAWSON, A.M., *Assistant Professor of Physics*

- RUFUS WILLIAM McCULLOCH, A.M., *Assistant Professor of English*  
 BERTHA JOSEPHINE HOWARD, M. A., *Assistant Professor of Economics and Sociology*  
 PLATT ASHLEY PEARSALL, B.S., *Assistant Professor of Chemistry*  
 ALBERT MORTON BIERSTADT, Ph.D., *Assistant Professor of English*  
 HAROLD FRANCIS WATSON, M.A., *Assistant Professor of English*  
 MARION STEPHANIE BUZZELL, M.A., *Instructor in French*  
 FRANCES ELIZABETH ARNOLD, B.A., *Instructor in Spanish*  
 AARON BLESS, M.A., *Instructor in Physics*  
 ISRAEL CHASMAN, A.M., *Instructor in English*  
 ROBERT DOUGALL, B.S., *Instructor in History*  
 SHERMAN JEWETT GOULD, B.S., *Instructor in Physics*  
 WARREN STANHOPE LUCAS, M.A., *Instructor in Mathematics*  
 JOHN ANTHONY STRAUSBAUGH, A.B., *Instructor in Spanish and Italian*  
 CHARLES FLOYD WHITCOMB, *Instructor in French*  
 HAROLD CHANDLER WHITE, C.E., *Instructor in Chemistry*  
 FRANK SWAN BEALE, B.S., *Instructor in Mathematics*  
 MARION KATHARYN BRAGG, B.A., *Instructor in English*  
 EDWARD CHOATE BROWN, *Instructor in Mathematics*  
 HOWARD LLOYD FLEWELLING, B.A., *Instructor in English*  
 THELMA LOUISE KELLOGG, B.A., *Instructor in English*  
 WARREN EDWARD LORING, B.S., *Instructor in Mathematics*  
 WALTER WILLIAM PURDY, B.S., *Instructor in Chemistry*  
 GEORGE MERVIL SEELEY, A.B., *Instructor in Chemistry*  
 IRVING TREFETHEN RICHARDS, A.B., *Instructor in English*  
 WALTER WHITMORE CHADBOURNE, M.B.A., *Instructor in Economics and Sociology*  
 EDWIN DILLMON HULL, M.S., *Instructor in Biology*  
 LESLIE GEORGE JENNESS, B.S., *Instructor in Mathematics*  
 FRED EUGENE JEWETT, B.S., *Instructor in Economics and Sociology*  
 FLOYD FRANCIS OPLINGER, M.S., *Instructor in Chemistry*  
 FRANCIS DOOLITTLE WALLACE, A.B., *Instructor in Public Speaking*  
 RALPH ALLEN WILKINS, B.S., *Instructor in Chemistry*  
 NORMAN EMME WOLDMAN, M.S., *Instructor in Chemistry*  
 HELEN WOODBRIDGE, B.A., *Instructor in Biology*  
 DAVID GROSS, *Assistant in Spanish*

## GENERAL INFORMATION

The College of Arts and Sciences offers a course of liberal training equivalent to that of the standard New England college. It designs particularly to meet the needs of three classes of students:

1. Men and women who desire to pursue a cultural college course.

2. Men and women who desire to enter professional schools.
3. Men and women who plan to fit themselves for the profession of teachers in secondary schools, or for school superintendents.

## ADMISSION

The requirements for admission are given in full elsewhere in the catalog. They are practically the same as for other New England colleges and may be met by a four-year preparatory course in a good high school or academy.

## FRESHMAN STUDIES

The character of the work of the first year is conditioned somewhat upon the subjects offered for admission.

It is recommended that all students in this college register for as much of the required work as practicable in their freshman year, and they are expected to complete the whole of this work by the end of their sophomore year.

## GRADUATION REQUIREMENTS

Every candidate for the Bachelor of Arts degree is required to complete the following amount of work in college: (2) eighteen hours in Group 1, of which eight are in English and ten in foreign language; (b) ten hours in Group 2; (c) ten hours in Group 3; (d) military science and tactics, two years, three hours a week; (e) physical training, one year, two hours a week.

Including these requirements he must complete 30 hours in his major subject, and 125 hours for his entire curriculum.

1. LANGUAGE GROUP.—This is composed of courses in language and literature offered in the departments of English, Public Speaking, French, German, Latin, and Spanish and Italian.

2. SCIENCE AND MATHEMATICS GROUP.—This is composed of the courses offered in mathematics and the biological and physical sciences, including the courses offered by the Departments of Mathematics, Biology, Chemistry, Biological Chemistry, and Physics. The student is expected to follow a definite outline of courses in each department.

3. SOCIAL SCIENCE GROUP.—This is composed of the courses offered in the Departments of History, Economics and Sociology, Philosophy, Education; and the courses in Bibliography, History, Archeology, Fine Arts, Music, and Biblical Literature offered in other departments and not included in the first group.

4. MILITARY SCIENCE AND TACTICS, two years, three hours a week.
5. PHYSICAL TRAINING, one year, two hours a week.

### MAJOR SUBJECT

During the freshman year the student does not select a **major** subject and the registration is largely prescribed.

Beginning with the sophomore year each student must select some one department in which he is to pursue his major work. Any one of the following departments may be chosen for major work: Biology, (including Zoology, Botany, Physiology, and Entomology), Chemistry, Economics and Sociology, Education, English, French, German, History, Latin, Mathematics and Astronomy, Psychology, Physics, Spanish and Italian.

The major subject must include work counting not less than thirty nor more than fifty hours. In the case of departments in which less work is offered than amounts to thirty hours, this must be made up from such other related departments as the professor under whose direction the major subject is taken may prescribe. The remainder of the student's work may be selected from any department or departments of the university. This must be done with the approval of the head of the department in which the student has chosen his major subject and must bear some useful relation to his other work.

Major students in certain departments may also be required to select a minor subject in which a minimum of eighteen semester hours' work is to be done.

The head of the department in which the student has chosen his major subject becomes his major instructor, and during the remainder of the course this instructor acts as chief adviser in all matters relating to the curriculum, and is the representative of the student before the faculty.

### GENERAL LECTURE COURSE

A course of weekly lectures is given in the College of Arts and Sciences each semester. Attendance is open to all, and credit is granted when the course is completed.

### PROGRAM FOR SECONDARY SCHOOL TEACHERS LEADING TO A STATE CERTIFICATE

The College of Arts and Sciences of the University of Maine has arranged a program for the professional training of secondary school teachers, which will entitle those who complete it to a professional state certificate for secondary school teachers. The program has been arranged in conference with the State Superintendent of Public Schools and has his endorsement.



In addition to fulfilling the general requirements leading to the degree of Bachelor of Arts, the student is expected to complete three hours in Psychology 49, three hours elective in Psychology, or Educational Psychology, twelve hours' work in Education in the junior and senior years, thirty hours in a major subject, and from ten to twenty hours in a minor subject. The prescribed work in Education includes three hours in the History of Education, three hours in Methods of Teaching, and six hours to be elected.

The selection of a major subject to which the student devotes 30 hours and a minor subject to which he devotes from 15 to 20 hours is designed to equip him for teaching two subjects related to the high school. Usual combinations of high school subjects are English and history, Latin and history, English and Latin, Latin and modern languages, mathematics and physics, physics and chemistry. For the completion of this course a high standard of scholarship is required. All the prescribed work must be of C grade or above. Upon completing this course the student will receive a Professional Secondary Certificate from the State Department of Public Instruction which will designate the major and minor subjects which he has pursued. A special certificate will also be issued by the university which will give a detailed outline of the student's record.

### BACHELOR OF ARTS CURRICULA

The work in the College of Arts and Sciences leads to the degree of Bachelor of Arts (B. A.). The curricula demand 125 hours and are regularly completed in four years, but a student of exceptional preparation and application may complete the requirements in three years by attending one or more summer terms. Students fitting themselves for professional or technical schools are often encouraged to do this, but prospective teachers are recommended to spend four years in college.

No outlines of the curricula in the College of Arts and Sciences are given in the catalog, but students may have an outline presented to them by applying to the professor in charge of the department in which they are interested. Groups of studies are made up which would be desirable for students intending to prepare for teaching, or to enter upon the study of law, medicine, or theology.

In this college 95 out of the 125 required hours must be made with a grade of C or above.

### BACHELOR OF PEDAGOGY CURRICULA

Graduates of the Maine normal schools who have completed a course in a Class A high school, and who have had one year of successful experience in teaching, are admitted to the university as candidates for the degree of Bachelor of Pedagogy. Such students are required to complete,



with high grade, seventy-five semester hours, of which twelve shall be in the Department of Education, and a sufficient number of the remaining hours shall be devoted to some one department to give them a satisfactory equipment for high school teaching.

## COMBINED ARTS AND MEDICAL CURRICULA

The marked increase in the number of pre-medical students in attendance at the university has led to the establishment of definite programs of work for such students. Owing to the work of the American Medical Association, two years pre-medical work in an Arts college has become the standard requirement for admission to class A medical schools, and with this in view the two-year course has been arranged. The three-year course has been arranged in connection with an agreement with certain medical schools, which provides that a student who completes three years at this institution may enter the medical school, and receive his bachelor's degree here at the completion of his first year at the medical school. A four-year course will be arranged to meet the need of students who wish a broader academic training before beginning their distinctly medical studies. Three or four years of academic work are strongly recommended to the prospective student.

### Two-Year Course

#### FIRST YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
General Biology.....	4	General Biology.....	4
General Chemistry.....	4	General Chemistry.....	4
English .....	3	English .....	3
Modern Language.....	5	Modern Language.....	5
Military .....	1½	Military .....	1½
Physical Training.....	½	Physical Training.....	1

#### SECOND YEAR

Vertebrate Morphology.....	4	Animal Embryology.....	4
Qualitative Analysis.....	5	Organic Chemistry.....	5
General Physics.....	3	General Physics.....	3
Laboratory Physics.....	1	Laboratory Physics.....	1
Military .....	2	Military .....	2
Elective .....	3	Elective .....	3

## Three-Year Course

## FIRST YEAR

<i>Fall Semester</i>			<i>Spring Semester</i>		
Subject		Hours	Subject		Hours
General Biology.....		4	General Biology.....		4
General Chemistry.....		4	General Chemistry.....		4
English .....		3	English .....		3
Modern Language.....		5	Modern Language.....		5
Military .....		1½	Military .....		1½
Physical Training.....		½	Physical Training.....		1

## SECOND YEAR

Vertebrate Morphology.....	4	Animal Embryology.....	4
Qualitative Analysis.....	5	Organic Chemistry .....	5
General Physics.....	3	General Physics.....	3
Laboratory Physics.....	1	Laboratory Physics.....	1
Modern Language.....	3	Modern Language.....	3
Military .....	2	Military .....	2

## THIRD YEAR

Animal Physiology.....	4	Animal Histology.....	4
English .....	3	English .....	3
Scientific German.....	2	Scientific German .....	2
Psychology .....	3	Psychology .....	3
Sociology .....	3	Social Pathology.....	3
Genetics .....	2	Elective .....	2

## PRE-DENTAL CURRICULUM

The standard dental schools now require for admission one year of college work, including biology, chemistry, and English. The following curriculum will enable pre-dental students to meet the new requirements:

General Biology.....	4	General Biology.....	4
General Chemistry.....	4	General Chemistry.....	4
English 1.....	3	English 2.....	3
History 7.....	3	History 8.....	3
Modern Language.....	3	Modern Language.....	3
Military 1.....	1½	Military 2.....	1½
Physical Training.....	½	Physical Training.....	½

Students planning to enter a dental school should be careful to elect a year's work in physics during their high school course.

## Departments of Instruction

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NOTE: A star (\*) before the time designated for a course indicates that three hours of actual work are required to obtain credit for one hour; a dagger (†) indicates that two hours are required to obtain this credit.

*Courses designated by an odd number are given in the fall semester; those designated by an even number, in the spring semester.*

*Courses numbered 1-50 are for undergraduates only; courses numbered 50-100 are for graduates and undergraduates; courses numbered 100 and above are primarily for graduates.*

### ASTRONOMY

PROFESSOR HART; MR. LUCAS

10. DESCRIPTIVE ASTRONOMY.—An elementary course. The text-book is supplemented by informal lectures, illustrated by lantern slides, drawings of celestial objects, and work in the observatory. Open to all students. *Three hours a week.*

15, 16. GENERAL ASTRONOMY.—Designed for general culture and for students in mathematics and physics. Recitations, lectures, solutions of problems, observations with instruments in the observatory. Open to sophomores, juniors, and seniors who have had Mathematics 1. *Three hours a week.* Given in 1923-1924 and alternate years.

57. PRACTICAL ASTRONOMY.—A course arranged to meet the needs of engineering students, and consisting mainly of problems in the conversion of time, the determination of terrestrial latitudes, and the establishment of meridian lines. The data for these problems are taken largely from the students' own observations, and the course is intended to emphasize the necessity of careful work in the field, as well as accurate and well arranged computations. The instruments employed are the sextant, artificial horizon, portable chronometer, theodolite, vertical circle, astronomical transit, and zenith telescope. Open to students who have taken Mathematics 1, 3, and Astronomy 10. *Two hours of recitations or lectures and two hours of observatory work a week.*

59, 60. PRACTICAL ASTRONOMY.—The theory and use of the sextant, universal instrument, zenith telescope, transit, and equatorial. Open to students who have taken Mathematics 6, 7, 8, and Astronomy 10. *Three hours a week.* Not given in 1922-1923.

## BIBLICAL LITERATURE

DEAN STEVENS

1, 2. THE ENGLISH BIBLE.—A study of the English Bible as a masterpiece of literature, with the main object of familiarizing the student with the content of the Bible itself, and with the use made of it by the great masters of English literature. *Two hours a week.*

## BIOLOGY

PROFESSOR CHRYSLER; ASSOCIATE PROFESSOR BLAKE; ASSOCIATE PROFESSOR BATCHELDER; MR. HULL; MISS WOODBRIDGE

GENERAL BIOLOGY.—Course 1, General Zoology, together with Course 2, General Botany, comprise a year's work in General Biology. After completing Courses 1 and 2 a student may specialize on either the botanical or the zoological side of biology. The science requirement in the College of Arts and Sciences may be met by taking Courses 1, 2, and 7.

1. GENERAL ZOOLOGY.—The fundamental principles of animal life, illustrated by examples from the principal groups, and including some work on the anatomy and physiology of higher animals. Required of students taking the Curricula in Agriculture and Forestry, and Pre-medical work. Class room, *two hours a week*; laboratory, †*four hours a week*.

2. GENERAL BOTANY.—The fundamental principles of plant life, illustrated by examples from the various groups, with special attention to the seed plants. Required of students taking the Curricula in Agriculture, Forestry, and Home Economics, and Pre-medical work. Prerequisite, Course 1. Class room, *two hours a week*; laboratory, †*four hours a week*.

5. ELEMENTARY PHYSIOLOGY.—The anatomy, physiology, and hygiene of higher animals, especially applied to man. Required of students taking the Curriculum in Home Economics. Class room, *two hours a week*; laboratory, †*four hours a week*.

7. GENETICS.—A general treatment of the facts which form the basis of our knowledge of inheritance. Prerequisites, Courses 1 and 2. *Two hours a week.*

8. ENTOMOLOGY.—A study of the structure, life-histories, and classification of insects, illustrated by common farm and forest species; the special insect pests of field, garden, orchard, and forest, and of domestic animals; methods of control. Some work on animal parasites other than insects is included. Prerequisites, Courses 1 and 2. Class room, *two hours a week*; laboratory, †*four hours a week*.

9. PLANT TAXONOMY AND HISTOLOGY. 10. PLANT PHYSIOLOGY AND PATHOLOGY.—A combined course for one year for students in Agriculture, consisting of: practice in the identification of the higher plants; microscopic work on the cell, tissues, and organs of the higher plants; a study of the functions of plants, including nutrition, growth, and response; a study of the diseases of plants, especially those caused by fungi. Prerequisites, Courses 1 and 2. Class room, *two hours a week*; laboratory, *†six hours a week*.

11. PLANT DISEASES.—A non-technical view of the subject designed for students who have had only General Biology. Class room, *two hours a week*; laboratory, *†two hours a week*.

15. ORGANIC EVOLUTION.—A discussion of the problem of the origin of species. Open to students who have had no previous work in biology. *Two hours a week*.

17. WOOD IDENTIFICATION.—The identification of the various commercial woods by means of the unaided eye and the microscope. Open to students in Chemical Engineering, and to others by permission. *\*Three hours a week*.

51. VERTEBRATE MORPHOLOGY.—An interpretation of the fundamental principles of structure, origin, and history of vertebrate organ systems. Particular emphasis is placed upon the anatomy of the cat and the fowl in the laboratory studies. Prerequisites, Courses 1 and 2. Class room, *two hours a week*; laboratory, *†four hours a week*.

52. ANIMAL EMBRYOLOGY.—A study of the fundamental principles of development, and the formation of organ systems and tissues in vertebrates. Laboratory work on fish, frog, and chick. Prerequisite, Course 51. Class room, *two hours a week*; laboratory, *†four hours a week*.

53. ADVANCED ANIMAL PHYSIOLOGY.—A study of the activities of cells and organ systems, with experimental work on the muscles, nerves, circulation, etc., in frog and man. Prerequisite, Course 51. Class room, *two hours a week*; laboratory, *†four hours a week*.

54. ANIMAL HISTOLOGY.—A study of the structure of protoplasm, cells, and tissues; practice in microscopical technique. Prerequisite, Course 51. Class room, *two hours a week*; laboratory, *†four hours a week*.

56. VERTEBRATE ANATOMY.—A continuation of Course 51, with special reference to other vertebrate types, especially dogfish and a reptile. Prerequisite, Course 51. Laboratory, *†four to †eight hours a week*.

57, 58. ECONOMIC ENTOMOLOGY.—A further study of economic insects and entomological problems, varying according to the needs of the students. Prerequisite, Course 8. Laboratory, *†four to †eight hours a week*.

61. PLANT HISTOLOGY.—The microscopic structure of the higher plants: the cell; the various tissues; the root, stem, leaf, and spore-bearing



ing organs; the adaptations of plants to external conditions, considered from the standpoint of structure; killing, sectioning, staining, and mounting of plant tissues. Prerequisites, Courses 1 and 2. Class room, *two hours a week*; laboratory, *†four hours a week*.

62. PLANT PHYSIOLOGY.—The plant is considered from the standpoint of its activities; absorption and transport of raw material; manufacture, transport, and storage of food; growth; movement in response to stimuli. Prerequisite, Course 61. Class room, *two hours a week*; laboratory, *†four hours a week*.

63. PLANT TAXONOMY AND MORPHOLOGY.—The identification of seed-plants by the use of a manual; the structure and relationships of vascular plants from the evolutionary standpoint. Prerequisite, Course 61. Class room, field, and laboratory work; *time to be arranged*, giving four credit hours.

64. PLANT ECOLOGY.—Two aspects of the subject are presented: (1) physiographic ecology studied in the field as far as the season permits; (2) structural ecology, viz., the histological features characteristic of plants growing in extreme habitats, and of those having special modes of nutrition. Prerequisite, Course 9 or 61. Class room, *one hour a week*; laboratory, *†four hours a week*. Given in 1922 and alternate years.

66. FOREST PATHOLOGY.—The diseases of trees, especially those caused by fungi; destruction of timber by fungi; methods of combating plant diseases. Prerequisite, Course 61. Class room, *two hours a week*; laboratory, *†two hours a week*. Given in 1923 and alternate years.

67, 68. FOREST BOTANY.—A systematic study of the commercial trees of North America, with field study and identification of Maine representatives. Prerequisites, Courses 1 and 2. Class room, *two hours a week*; laboratory, *†four hours a week*.

71, 72. BIOLOGICAL SEMINAR.—Preparation and discussion of papers dealing with recent advances in zoology and botany. Open to seniors and graduate students. *One hour a week*.

73, 74. THESIS.—Students in the College of Agriculture specializing in biology may prepare a thesis on some subject approved by the head of the department. *Time varies*.

75, 76. ADVANCED ZOOLOGY.—This course offers an opportunity for spécial zoological work along lines suited to the future plans of the student. It may consist of field work, laboratory work, or reading, or a combination of all three. In general each student is given a problem for investigation and encouraged to devise methods for its solution. *The time varies* and the work may be continued a number of semesters.

77, 78. ADVANCED BOTANY.—This course offers an opportunity for special work in botany along lines best suited to the future plans of the



student. It may consist of laboratory work, field work, or reading, or a combination of all three. *The time varies* and the work may be continued a number of semesters.

## CHEMISTRY

*The courses in this department are described under the College of Technology.*

The science requirement in the College of Arts and Sciences may be met by completing courses Ch 1-5, 2-6, (or 3-7, 4-8), Ch 17, and Ch 42.

Students taking chemistry as a major subject in the College of Arts and Sciences must complete satisfactorily not less than thirty hours in chemistry, including Ch 1-5, 2-6 (or 3-7, 4-8), 11, 40, 51, and 71.

The following work in chemistry is now required for medical colleges of the first class: (See catalog of medical school).

Three years' preparation in chemistry will be required, including at least 240 hours of class room work and 500 hours of laboratory work. The former must include 60 hours in organic chemistry and a short course in physical chemistry, while the latter must include one year's work in quantitative analysis and 120 hours in organic chemistry.

## ECONOMICS AND SOCIOLOGY

PROFESSOR ASHWORTH; ASSOCIATE PROFESSOR TOELLE; ASSISTANT PROFESSOR HOWARD; MR. JEWETT; MR. CHADBOURNE

Students doing their major work in the department of Economics and Sociology are expected to take all of one of the following groups: 1a, 2a, 11, 12, 51, 52, 53, 93, 94; 55, 56, 81, 82, 97, 98; 61, 62, 63, 64, 87, 88.

### I. Economics

1a. PRINCIPLES OF ECONOMICS.—An introductory course dealing with the general principles of modern economic activity. It is the purpose of this course to lay the foundation for further study in economics and to give the students who do not take other courses in the subject an understanding of the economic structure of society which every educated person is supposed to have. For students in the College of Arts and Sciences this course is prerequisite for other courses in economics. Not open to freshmen. *Three hours a week.*

1b. PRINCIPLES OF ECONOMICS.—Similar to Course 1a. For technical and agricultural students this course is prerequisite for other courses in economics unless Course 1a be taken. *Two hours a week.*

2a. MODERN ECONOMIC PROBLEMS.—A continuation of Course 1a. Banking, insurance, the tariff, taxation, wages and other economic problems. *Three hours a week.*

2b. MODERN ECONOMIC PROBLEMS.—A continuation of Course 1b. Similar to Course 2a. *Two hours a week.*

7. GEOGRAPHY AND INDUSTRY.—A brief study of the resources of the countries of the world: agricultural, mining, forestry, fishing, and animal industries; means of transportation and communication; emphasis upon resources and production in the United States. *Two hours a week.*

8. AMERICAN COMMERCE.—The commercial relations of the United States with foreign countries: theory of foreign trade and tariff policies; modern organization and practices; credit and banking facilities; commercial treaties; special attention to trade with South American countries. *Two hours a week.*

9. ACCOUNTING.—This course aims to give the student that general knowledge of the principles of accounting which every business person should possess. Since this course does not presume any knowledge of bookkeeping a considerable part of the work is devoted to double entry bookkeeping. *Three hours a week.*

10. ACCOUNTING.—A continuation of Course 9. Partnership and corporation accounting; balance and income sheets; depreciation, reserve, sinking fund, and investment accounting; advanced forms of final statements; realization and liquidation. *Three hours a week.*

11, 12. BUSINESS LAW.—The legal principles of modern business; contracts, agency, corporations, partnerships, bailments, guaranty, and insurance. Juniors and seniors only. *Three hours a week.*

12a. BUSINESS LAW.—Similar to Courses 11, 12, for engineering students. *Three hours a week.*

51. CORPORATION FINANCE.—The promotion, financing, incorporation, and capitalization of industrial corporations in the United States; the relations of stockholders and directors; stock speculation; receiverships and reorganizations. Juniors and seniors only. *Three hours a week.*

52. PUBLIC FINANCE.—Government activities and public revenue; tax systems with emphasis on existing systems and proposed reforms; government expenditures with emphasis on the budget system; the Maine system of taxation. Juniors and seniors only. *Three hours a week.*

53. MONEY AND BANKING.—The monetary and banking systems of the United States and other countries. Special emphasis on banking in its relation to business.

59. INSURANCE.—The relation of insurance and risks to modern business organization; principles of life and property insurance; types of companies and policies; rate making; investment of insurance companies;

legislation for the protection of policy holders. Juniors and seniors only. *Three hours a week.*

60. TRANSPORTATION.—The historical development of transportation in the United States; railway organization and combination; financing and rate making; federal and state regulation; government ownership and operation; railway policies of leading European countries. Juniors and seniors only. *Three hours a week.*

71. BUSINESS ORGANIZATION AND MANAGEMENT.—The production, structure, functions, and financing of business undertakings; significance of large scale production; economic and legal aspects of business combinations; business methods, system and efficiency; problems of business management. Juniors and seniors only. *Three hours a week.*

72. LABOR PROBLEMS.—The industrial revolution and the development of the modern conflict between capital and labor; history, aims, policies, and methods of trade unions; present day industrial problems; woman and child labor, immigration, wages, hours of labor, working-men's insurance, and agencies of industrial peace. Juniors and seniors only. *Three hours a week.*

93, 94. ECONOMIC THOUGHT.—A study of economic thought of the past and the present. Required of students majoring in economics. *Two hours a week.*

101, 102. ECONOMIC SEMINAR.—Special work for those fitted for it.

## II. Sociology

55. GENERAL SOCIOLOGY.—Human life and its organization; the evolution of institutions; the laws and forces which are fundamental in society; some psychological phases of the subject. Prerequisite to other courses in sociology. Not open to freshmen. *Three hours a week.*

56. SOCIAL PATHOLOGY.—Application of sociological principles in the study of poverty and relief; criminality and its prevention; care of dependents and defectives. *Three hours a week.*

81. THE FAMILY.—A historical consideration of the origin and development of the family; the legal and economic relations of its members; its significance as an institution; its pathological manifestations. *Two hours a week.*

82. RURAL SOCIOLOGY.—The social problems of country life: isolation of rural communities; movement of the people to the city; social activities; agencies for the improvement of rural life: the school, the church, and other institutions and organizations. Open to students of the College of Agriculture without the usual prerequisite. *Two hours a week.*

97. IMMIGRATION AND AMERICANIZATION.—A history of immigration into the United States; the social, economic, and political aspects of im-

migration; agencies and methods of Americanizing the immigrant. Students who have had Economics 1 may by permission of the head of the department take this course without having had Course 55. Juniors and seniors only. *Two hours a week.*

98. SOCIAL REFORM PROGRAMS.—An analysis of the socialist indictment of the present economic system; the history of socialism with special reference to recent events; the history of other movements aiming to transform the social order: communism, government ownership, the single tax, etc. Students who have had Economics 1 may by permission of the head of the department take this course without having had Course 55. Juniors and seniors only. *Three hours a week.*

### III. Political Science

61. AMERICAN GOVERNMENT.—The principles and interpretation of the federal government; emphasis on present day political problems which relate to fundamental principles of the American government. Prerequisite to other courses in political science. Not open to freshmen. *Three hours a week.*

62. STATE AND LOCAL GOVERNMENTS.—Powers, rights, and obligations of the states in the Federal union; formation and admission of state; development of the state constitutions; organization of state and local governments; brief survey of the newer problems connected with state governments. *Three hours a week.*

63. FOREIGN GOVERNMENTS.—The political institutions of England party development and current problems national and local; the government of the overseas dominions; a comparative study. *Two hours a week, during the first semester.*

64. FOREIGN GOVERNMENTS.—A comparative study of the political institutions of France, Italy, Germany, Switzerland, and the Argentine party development and current problems national and local. *Two hours a week.*

87. AMERICAN DIPLOMACY.—The Department of State; diplomatic service; the treaty making power; the foreign policy of the United States diplomatic controversies with foreign powers; the United States as a world power. Juniors and seniors only. *Three hours a week.*

88. INTERNATIONAL LAW.—Development, nature, source, and present status; development of internationalism. Juniors and seniors only. *Three hours a week.*

## EDUCATION

PROFESSOR POLLARD; ASSOCIATE PROFESSOR CHADBOURNE

### Historical Courses

51. HISTORY OF EDUCATION IN THE UNITED STATES.—Evolution of education, educational institutions, school systems, and practices of the American people. *Three hours a week.*

52. HISTORY OF EDUCATION.—Evolution of educational theory, institutions and practices of the Greek, Roman, and modern civilizations. *Three hours a week.*

53, 54. CONTEMPORARY MOVEMENTS IN EDUCATION.—The objects, methods, and influences of certain modern American and European schools representing advanced educational practices. *Two hours a week.*

### Theoretical Courses

25. PRINCIPLES OF EDUCATION.—The foundations of educational procedure, as based upon the modern sociological and psychological theories and research; formal and informal education. *Three hours a week.*

56. MENTAL TESTS.—A laboratory course in the methods and technique of mental tests, including practice of making mental tests and measurements. *Two hours a week.*

57. EDUCATIONAL PSYCHOLOGY.—The psychology of learning and its application to education; individual differences, mental inheritance, and mental ability. Open to students who have had Psychology 49. *Three hours a week.*

58. SCHOOL HYGIENE.—School architecture and equipment; heating, lighting, and ventilation; mental health of teacher and pupils; communicable diseases and the relation of school authorities to health authorities. *Two hours a week.*

71. PSYCHOLOGY OF SECONDARY EDUCATION.—A study of the adolescent age and of the general psychological principles which determine the scope and character of secondary education. Open to students who have had Psychology 49. *Three hours a week.*

72. PSYCHOLOGY OF HIGH SCHOOL SUBJECTS.—This course undertakes a psychological analysis of various high school courses as to their importance and organization; reasons for reorganization of some of these courses as discussed in recent educational writings. Open to students who have had Psychology 49. *Three hours a week.*

81. VOCATIONAL EDUCATION.—A survey of the recent rapid development of various organizations, within and outside of the schools, for secur-



ing a more rational adjustment between education and the early vocational experience of young people as they leave the care of the school. *Two hours a week.*

90. EDUCATIONAL MEASUREMENT.—A critical discussion of the validity of the tests; principles of design and methods of construction; the use of standard tests to the administrator, to the teacher, and to school surveyors. *Two hours a week.*

91. PSYCHOLOGY OF ELEMENTARY EDUCATION.—A study of the physical and mental development of the child up to the adolescent period dealing with the mental processes involved in learning. Open to students who have had Psychology 49. *Three hours a week.*

92. PSYCHOLOGY OF ELEMENTARY SCHOOL SUBJECTS.—A study of the methods by which children learn to read, write, draw, spell, and grasp the meaning of other elementary subjects. Open to students who have had Psychology 49. *Three hours a week.*

113, 114. SEMINAR.—Research in Educational Psychology. *Three hours a week.*

### Practical Courses

27, 28. EDUCATIONAL PRACTICE.—A laboratory course in directed teaching, based upon the observation of, and participation in, activities of the high schools of Old Town and Orono. *Two to four hours a week.*

77, 78. METHODS OF TEACHING.—A general-methods course for prospective high school teachers. The course deals with the problems of the class room teaching. *Three hours a week.*

97, 98. CURRENT PROBLEMS IN EDUCATION.—Each member of the class is assigned a special problem. *Two hours a week.*

### Administration Courses

61. HIGH SCHOOL ADMINISTRATION.—This course deals with the practical problems of high school administration, including the high school, the elementary school, the junior high school, and the college. *Two hours a week.*

62. ADMINISTRATION AND SUPERVISION OF THE ELEMENTARY SCHOOLS. A course for those who expect to become principals of elementary schools. It deals with the problems of organization and the purposes of the elementary schools. *Two hours a week.*

63. JUNIOR HIGH SCHOOL.—The development, place, and administration of the junior high school. *Two hours a week.*

64. STATE SCHOOL SYSTEMS.—A study of the principles of organization and of the typical agencies for the administrative control of American state educational systems. *Two hours a week.*



65. MUNICIPAL SCHOOL SYSTEMS.—A consideration of the organization, administration and problems of city school systems. *Two hours a week.*

94, 95. SCHOOL LAWS.—A critical study of the school laws in each state and of court decisions. *Two hours a week.*

103, 104. SEMINAR.—Educational Statistics. *Two hours a week.*

105, 106. SEMINAR.—Problems in Elementary School Education. *Three hours a week.*

110. THE JUNIOR COLLEGE.—The development, place, and administration of the junior college. *Two hours a week.*

111, 112. SEMINAR.—Problems in Secondary School Education. *Three hours a week.*

115, 116. SEMINAR.—Educational Administration. *Two hours a week.*

## ENGLISH

PROFESSOR ELLIS; ASSOCIATE PROFESSOR DRAPER; ASSISTANT PROFESSOR McCULLOCH; ASSISTANT PROFESSOR BIERSTADT; ASSISTANT PROFESSOR WATSON; MR. CHASMAN; MISS KELLOGG; MISS BRAGG; MR. FLEWELLING; MR. RICHARDS

Eh 1, 2, Freshman Composition and Literature, is prescribed for all freshmen and is prerequisite for all other courses in English.

All students intending to do major or minor work in English are required to take Eh 3, 4 in the sophomore year. They are also advised to elect English History, and elementary German if they have not had it in high school, in the freshman or sophomore year. Requirements or recommendations for other groups of students are the following:

For all students in the College of Arts and Sciences, one of the survey courses in literature, Eh 3, 4, or Eh 13, 14 (see description of these courses below), is required in the sophomore year.

For all students in the College of Technology, Eh 9 or 10, Modern Literature, is required in the junior year if Pb 3, 4 is not elected in its stead; and in the senior year Eh 5 or 6, Technical Composition.

For all students in Forestry, Eh 5, Technical Composition, is required in the fall semester, and Eh 10, Modern Literature, in the spring semester, of the sophomore year.

For all students in Home Economics, Eh 3, 4, History of English Literature, is required in the sophomore year.

For all other students in the College of Agriculture, Eh 5 or 6, Technical Composition, is required in the junior year. Students in the Biology Curriculum also take Eh 10, Modern Literature, in the spring semester of the junior year.

1, 2. FRESHMAN COMPOSITION AND LITERATURE.—Two days a week are devoted to a study of the fundamental principles of good usage in writing and the expository and narrative forms of composition, with some attention to description and argumentation. Frequent themes and weekly conferences are required. The remaining time is given to the consideration of several famous books from different periods of English literature. Prescribed for all freshmen. *Three hours a week.*

3, 4. HISTORY OF ENGLISH LITERATURE.—A survey of the literature from its beginning to the end of the nineteenth century. Lectures and recitations based upon the direct study of selections from the chief English poetry and prose. Written reports on assigned topics. Prerequisite for all advanced courses in English literature. *Three hours a week.*

5, 6. TECHNICAL COMPOSITION.—Business correspondence, reports and summaries of investigation, and preparation of manuscript for theses and technical journals. Required of students in the Colleges of Agriculture and Technology as above indicated. *Two hours a week*, fall or spring semester. Not open to students in Arts and Sciences.

7, 8. ADVANCED COMPOSITION.—A course designed to meet the needs of students who have passed Eh 1, 2 with a grade of C or better and desire to continue practice in writing for literary or practical purposes. *Two hours a week.*

9, 10. MODERN LITERATURE.—A study of representative short-stories, novels, essays, poetry, and plays of the last hundred years, with the design of cultivating the appreciation and enjoyment of good literature. Reports and criticisms of the works read are written. Open to all students in the Colleges of Agriculture and Technology who have completed Eh 1, 2. *Two hours a week*, fall or spring semester.

11, 12. COMPOSITION AND RHETORIC.—A continuation course for those who, having completed Eh 1, 2, feel the need of further practice in writing. *Two hours a week.*

13, 14. ENGLISH LITERATURE FROM 1550 TO 1900.—A survey of English literature from the age of Shakespeare to the close of the nineteenth century. Lectures and recitations based upon the direct study of selections from the chief English poetry and prose in the periods included. Written reports on assigned topics. *Two hours a week.*

15, 16. BUSINESS CORRESPONDENCE.—An elective course, primarily for major students in Economics. The main object of the course is to acquaint students with the use of correct and forceful English for business purposes. Prerequisite, Eh 13, 14 (or Eh 3, 4). *Two hours a week*, fall or spring semester.

18. ENGLISH LITERATURE FOR FRESHMEN.—An elective course for freshmen in the College of Technology who have passed Eh 1. Rapid

reading and study of worthy examples of English Literature. *Three hours a week.*

22. THE TEACHING OF ENGLISH.—Study of selected classics from the point of view of the teacher. Discussion of topics connected with the teaching of English in the secondary schools. *Two hours a week.*

23, 24. JOURNALISTIC COMPOSITION.—A fundamental course in news writing: the seeing of stories that have unique interest, developing news and feature stories, and cultivating an effective journalistic style. *Two hours a week.* Not given in 1922-23.

37, 38. VICTORIAN POETS.—In the fall semester Tennyson and Browning are studied; in the spring, Arnold and the later Victorians, with some consideration of the more recent British poets. A study of selected poems with extensive assigned reading. *Two hours a week.*

43, 44. AMERICAN LITERATURE.—A survey course, based upon the study of the chief works of American poets and prose writers. Lectures, recitations, assigned reading, and written reports. *Three hours a week.*

47, 48. ENGLISH PROSE FICTION.—Primarily a reading course, designed to familiarize the student with the greater masterpieces in the English novel and short-story of the last three centuries. *Two hours a week.* Not given in 1922-23.

*For the courses which follow, Eh 3, 4, History of English Literature, is prerequisite.*

51. ANGLO-SAXON.—A study of Anglo-Saxon grammar and reading of easy prose and poetry. Lectures on the literature of the Anglo-Saxon period. This course is recommended for those intending to teach English or to proceed to graduate study in the subject. *Three hours a week.*

52. BEOWULF.—This course supplements Eh 51 with a study of the earliest English epic. Attention is given to metrical, literary, and linguistic qualities and to the historical background. *Three hours a week.*

53, 54. CHAUCER.—A study of the *Canterbury Tales* and the chief minor poems, stressing the reading of Chaucer as poetry, his literary range and qualities, and the picture of his time given in his works. Some earlier and contemporary Middle English works are also studied for the literary and linguistic background. *Three hours a week.* Not given in 1922-23.

55, 56. NINETEENTH CENTURY POETRY.—In the first half the poetry of the English Romantic Movement is chiefly considered; in the second the poetry of the Victorian Age and the later period. *Three hours a week.* Not given in 1922-23.

57, 58. SHAKESPEARE.—A brief consideration of the English drama prior to Shakespeare, followed by a careful study of several of his most important plays and the reading of others. Some attention is given to

Elizabethan stage conditions and the dramatic work of his contemporaries. *Three hours a week.*

59. ENGLISH LITERATURE FROM 1790 TO 1830.—A study of the literature of the romantic and revolutionary movements, the early realistic reaction, the rise of periodical literature, and the social and political influences which affected the writers of the first quarter of the nineteenth century. *Three hours a week.* Not given in 1922-23.

60. ENGLISH LITERATURE FROM 1830 TO 1870.—The literary and scientific movements of the era, the Victorian novelists, tractarianism, pre-Raphaelitism, the greater poets, imperialism, and the later realists and romancers. *Three hours a week.* Not given in 1922-23.

61, 62. HISTORY OF THE ENGLISH DRAMA.—The development of the drama in England from the miracle and mystery plays through the Elizabethan period, and the later tendencies in the Restoration drama, the eighteenth century, the nineteenth century closet drama, and the revival of the acting play in England, Ireland, and America. *Three hours a week.* Not given in 1922-23.

63. SIXTEENTH CENTURY LITERATURE.—Non-dramatic poetry and prose, including selected writings from the works of Wyatt, Surrey, Gascoigne, Lyly, Spenser, Shakespeare, Ben Jonson, and others. *Two hours a week.* Not given in 1922-23.

64. SEVENTEENTH CENTURY LITERATURE.—This course follows Course 63 and deals with writings from the works of Bacon; Cavalier and Puritan poets; Herrick, Milton, and Bunyan. *Two hours a week.* Not given in 1922-23.

65. RESTORATION LITERATURE.—The temper of the Restoration period as reflected in the literature; the Restoration drama; the significance of Dryden's work; political satire; the rise of modern prose; the standards of classicism in poetry. *Three hours a week.*

66. EIGHTEENTH CENTURY LITERATURE.—The school of Pope and the beginnings of romanticism; the rise of the essay and the beginnings of periodical literature; the rise of the novel; the political, social, and religious influences; the poetry of Burns. *Three hours a week.*

67. OUTLINE HISTORY OF THE ENGLISH LANGUAGE.—The descent and relationships of the English language; the successive periods of foreign influence; the sources and character of the English dialect. Recommended for prospective teachers of English. *Two hours a week.*

68. FORMS AND TYPES OF ENGLISH POETRY.—A study of the different metrical forms in English verse and of the ballad, sonnet, lyric, and other common types. *Two hours a week.*

69, 70. THE EIGHTEENTH AND NINETEENTH CENTURY ESSAY.—Among the writers of the eighteenth century, Addison, Swift, Johnson,

Goldsmith, and Burke are studied; among those of the nineteenth, Lamb, DeQuincey, Macaulay, Carlyle, Ruskin, Arnold, and Stevenson. *Two hours a week.* Not given in 1922-23.

71. ADVANCED AMERICAN LITERATURE.—A somewhat intensive study of American Literature from 1800 to about 1840. *Three hours a week.*

72. ADVANCED AMERICAN LITERATURE.—A study of the drama in the United States. *Three hours a week.*

101, 102. SEMINAR.—The subject is determined by the needs of the students in attendance.

## FRENCH

PROFESSOR SEGALL; ASSOCIATE PROFESSOR KUENY; MISS BUZZELL;  
MR. WHITCOMB

1, 2. ELEMENTARY FRENCH.—Grammar, pronunciation, composition, conversation, translation. *Five hours a week.*

3, 4. INTERMEDIATE FRENCH.—Grammar, pronunciation, composition, conversation, translation. Open to students who have taken Courses 1 and 2, or an equivalent. *Three hours a week.*

3a. INTERMEDIATE FRENCH.—Equivalent of Courses 3 and 4. Open to students who have taken Courses 1 and 2, or an equivalent. *Five hours a week.*

4a. ADVANCED FRENCH.—A continuation of Course 3a. Equivalent of Courses 5 and 6. *Five hours a week.*

5, 6. ADVANCED FRENCH.—Pronunciation, composition, conversation, rapid reading of modern authors. Open to students who have taken Courses 3 and 4, or an equivalent. *Three hours a week.*

7, 8. ELEMENTARY CONVERSATION AND COMPOSITION.—Open to students who have taken Courses 1 and 2, or an equivalent. *Two hours a week.*

9, 10. ADVANCED CONVERSATION AND COMPOSITION.—Open to students who have taken Courses 7 and 8, or an equivalent. *Two hours a week.*

53. THE NOVEL IN THE NINETEENTH CENTURY.—The Romantic Period: Madame de Staël, Chateaubriand, Victor Hugo, Dumas père, De Vigny, Stendhal, George Sand, Balzac, Mérimée, Gautier. Lectures, recitations, themes. Open to students who have taken Courses 5 and 6. *Two hours a week.*

54. THE NOVEL IN THE NINETEENTH CENTURY.—The Realistic Period: Feuillet, Flaubert, Edmond et Jules de Goncourt, Daudet, Zola,



Maupassant, Anatole France, Loti, Bourget. Lectures, recitations, themes. Open to students who have taken Courses 5 and 6. *Two hours a week.*

55. THE DRAMA IN THE NINETEENTH CENTURY.—The Romantic Period: Dumas père, Victor Hugo, Alfred de Vigny, Alfred de Musset, Scribe. Lectures, recitations, themes. Open to students who have taken Courses 5 and 6. *Two hours a week.*

56. THE DRAMA IN THE NINETEENTH CENTURY.—The Realistic Period: Augier, Dumas fils, Labiche, Meilhac et Halévy, Sardou, Pailleur, Henry Becque, Georges de Porto-Riche, Paul Hervieu, Maurice Donnay, Jules Lemaitre, François de Curel, Eugène Brieux, Henri Lavedan, Coppée, Rostand. Lectures, recitations, themes. Open to students who have taken Courses 5 and 6. *Two hours a week.*

57, 58. ADVANCED FRENCH GRAMMAR.—A teacher's course. Lectures, recitations, practical exercises. Open to students who have taken Courses 9 and 10, or an equivalent. *Three hours a week.* Given in 1922-23 and alternate years.

59, 60. HOW TO WRITE FRENCH.—An advanced course in French composition. Open to students who have taken Courses 9 and 10, or an equivalent. *Three hours a week.* Given in 1923-24 and alternate years.

101, 102. THE MIDDLE AGES.—The historic development of the French language and literature from the origins to the Renaissance. The national epic; the epic of antiquity; romances of love and courtesy. Lyric poetry. Renard the Fox. Fabliaux. The Romance of the Rose. The chroniclers: Villehardouin, Joinville, Froissart, Commines. Latest medieval poets: Charles d'Orléans, Villon. The theatre. Lectures, recitations, themes. Open to students who have taken two courses in French literature. *Three hours a week.* Given in 1923-24.

103. THE SIXTEENTH CENTURY.—Renaissance and Reformation Clément Marot, Rabelais, Calvin. The Pleiade and Ronsard. The theatre. The Protestant poets: Du Bartas, d'Aubigné. Montaigne. Memoirs, historians, and political writers. Lectures, recitations, themes. Open to students who have taken two courses in French literature. *Three hours a week.* Given in 1924-25.

105, 106. THE SEVENTEENTH CENTURY.—The Hotel de Rambouillet and the Précieux school. Balzac. Descartes. The Jansenists, Port-Royal, Pascal. The Drama: Corneille, Molière, Racine. Madame de Sévigné, Madame de Lafayette, La Rochefoucauld. The Burlesque: Scarron. La Fontaine, Boileau. The Churchmen: Bossuet, Bourdaloue, Massillon, Fénelon. La Bruyère. Lectures, recitations, themes. Open to students who have taken two courses in French literature. *Two hours a week.*

109, 110. THE EIGHTEENTH CENTURY.—Memoirs and history; poetry; the theatre; the novel. Beyle, Fontenelle, Montesquieu, Vauvenargues, Voltaire, Diderot and the Encyclopedia, philosophers, economists, critics.



Buffon, Rousseau, Bernardin de Saint-Pierre, Beaumarchais, André Chénier. The Revolution. Lectures, recitations, themes. Open to students who have taken two courses in French literature. *Two hours a week.*

112. THE POETRY OF THE NINETEENTH CENTURY.—The historic development of the poetry of the century; a close and detailed literary study of representative poems. Béranger, Lamartine, Victor Hugo, Alfred de Vigny, Alfred de Musset, Gautier, Baudelaire, Leconte de Lisle, Sully-Prudhomme, Hérédia, Coppée, Richépin, Verlaine, Henri de Régnier, Moréas, Rodenbach, Verhaeren. Lectures, recitations, themes. Open to students who have taken two courses in French literature. *Three hours a week.* Given in 1924-25.

## GENERAL LECTURE COURSE

The College of Arts and Sciences of the University of Maine has arranged a series of weekly lectures of a popular nature, along the lines of work connected with the departments in that college.

Courses of lectures have been scheduled as follows:

1922-23 Ancient Civilization and Latin; Chemistry.

1923-24 English; Education and Philosophy.

1924-25 German and Romance Languages; Biology.

1925-26 History and Economics; Physics and Mathematics.

These courses will be repeated in the same order.

In 1922-23 a course of fifteen lectures each semester is being given by the Departments of Greek and Latin, and Chemistry.

Registration for this course is open to all students in the University and proper credit is given for its completion. The lectures are open to the public and are without charge.

## GEOLOGY

*The courses in this department are described under the College of Agriculture.*

## GERMAN

PROFESSOR DRUMMOND; ASSOCIATE PROFESSOR CARRINGTON

1, 2. FIRST YEAR GERMAN.—A course for beginners. Grammar, composition, translation, conversation. *Five hours a week.*

3, 4. SECOND YEAR GERMAN.—For students who have had Courses 1, 2 or equivalent. Translation, composition, grammar review. *Three hours a week.*

5, 6. **THIRD YEAR GERMAN.**—For students who have had Courses 3, 4 or equivalent. A course in German literature including the reading of texts of the eighteenth and nineteenth centuries and lectures. *Three hours a week.*

7, 8. **FOURTH YEAR GERMAN.**—For students who have had Courses 5, 6 or equivalent. Critical reading of standard works, principally from the nineteenth century literature; lectures; essays. *Three hours a week.*

9. **TEACHERS' COURSE.**—For those who intend to teach German. Discussion of methods of teaching, the value of different texts, preparation of the lesson, class-room work, pronunciation, word-derivation, historical grammar. *Two hours a week.*

10. **HISTORY OF GERMAN LITERATURE.**—An outline sketch of the history of German literature in German. Recitations, outside reading, lectures. *Two hours a week.*

13, 14. **ELEMENTARY GERMAN COMPOSITION AND CONVERSATION.**—For students who have had Courses 3, 4 or equivalent. *Two hours a week.*

15, 16. **SCIENTIFIC GERMAN.**—Open only to students whose previous study of German will enable them to read scientific German with profit. *Two hours a week.*

17, 18. **ADVANCED GERMAN CONVERSATION AND COMPOSITION.**—For students who have had Courses 13, 14. *Two hours a week.*

51, 52. **STUDIES IN EIGHTEENTH CENTURY LITERATURE.**—Special attention is given to the life and works of Klopstock, Lessing, Wieland, Goethe, Schiller. Critical study of different works, lectures, discussions. *Two hours a week.* Given in 1923-24 and alternate years.

53, 54. **FAUST.**—The history and development of the Faust legend, the influence of the Faust idea, critical study of Goethe's Faust. *Two hours a week.* Given in 1922-23 and alternate years.

55, 56. **STUDIES IN NINETEENTH CENTURY LITERATURE.**—The various literary movements of the nineteenth century, lectures, discussions, outside reading. *Two hours a week.*

57, 58. **SEMINAR.**—A study of some special topic in German literature. *Two hours a week.*

101, 102. **GOTHIC, INTRODUCTION TO THE STUDY OF GERMANIC PHILOLOGY.**—Historical grammar, word-derivation, translation. *Two hours a week.* Given in 1923-24 and alternate years.

103, 104. **OLD HIGH GERMAN.**—A study of the grammar and translation from the different dialects of this period; word development in relation to present-day language; discussion of sound changes. *Two hours a week.* Given in 1922-23 and alternate years.

105, 106. **MIDDLE HIGH GERMAN.**—A study of the grammar and its relation to modern German grammar; reading of such texts as Nibelung-

enlied, Walther von der Vogelweide, Hartmann von Aue; lectures on the literature of this period. *Two hours a week.*

## GREEK LANGUAGE AND LITERATURE AND ART HISTORY

PROFESSOR HUDDILSTON

### Greek

The Department of Greek is arranged with the idea of presenting several phases of the ancient civilizations. Such courses are offered as will prove serviceable to the student of average interests, who not having studied the ancient languages in the fitting school, may desire to include in his college curriculum some work bearing on the permanent contributions of early peoples to the civilization of ancient and modern times.

1, 2. ANCIENT CIVILIZATION.—This course has little in common with the ancient history of the preparatory schools. It is rather the achievements of the Greeks and Romans in laying the foundations of so much that is the basis of our modern day life and thought to which attention is directed. Some examination is made of Egyptian and Eastern civilization as the historic background on which developed classical life and action. An important part of the course lies in the emphasis that is given to the Greek thought and Roman rule in the midst of which Christianity sprang up.

Instruction is entirely by lectures and each student is required to keep a note-book, and also have as parallel reading Breasted's *Ancient Times*. *Three hours a week.*

3. PRIVATE LIFE OF THE GREEKS AND ROMANS.—Text-book; lectures, illustrated with lantern slides and photographs; assigned reading. *Two hours a week.*

4. EARLY RELIGIONS.—A study of the religious conceptions of the ancient Egyptians, Persians, Greeks, and Romans and their relation to art and literature; lectures and assigned reading; investigation of special topics by members of the class. *Two hours a week.*

5. BEGINNING GREEK.—Grammar and elementary work followed in second part of the semester by the easy reading in the New Testament Greek. The transition is gradually made to the more complex Greek of the Classical period. *Three hours a week.*

6. CONTINUATION OF COURSE 5.—Reading of parts of Xenophon and Plato. Further study of Greek grammar and the writing of Greek. *Three hours a week.*

51. GREEK LITERATURE.—The history of poetry,—epic, lyric, and dramatic. Types and standards of verse composition established by the ancient Greeks, and some consideration of the Greek influence upon later poetry, particularly the epic. Lectures and readings from English translations. Each student will be expected to make a special study of some one author, and in the treatment of Aeschylus, Sophocles, and Euripides, at least one play of each will be read in class, members of the class taking the several parts. This course, as well as the next on prose literature, is intended to be foundational for students majoring in classics or in modern languages. *Three hours a week.*

52. GREEK LITERATURE.—The history of prose literature in ancient Greece. History, oratory, and philosophy will be traced in succession. Students will be expected to do parallel reading, specially in Thucydides, Demosthenes, and Plato. This course may be taken only in connection with Course 51, and like the latter is intended to place the student in touch with the forces of lasting value in Greek letters. *Three hours a week.* Given in 1923-24 and alternate years.

55, 56. HISTORY OF THE NEAR EAST.—It is with the conviction that the present Near East can be understood only by the past Near East that this course is given. The early national traditions of the Near East are traced from the Greek age down thru Roman and Byzantine epochs. The brilliant periods of Balkan history are discussed with the spread of Ottoman power and the relation of Turkey to the affairs of Modern Europe. Obviously this course can be given only in the light of the Great War and the recent order of events in the Near East. Lectures and special assignments. Open only to students who have taken Gk 1 and 2, or by arrangement with the instructor. *Three hours a week.*

## Art

9. RENAISSANCE.—This period is studied particularly in Italian paintings of the fifteenth and sixteenth centuries. Lectures; study of pictures; special subjects for individual investigation. *Three hours a week.* Given in 1922-23 and alternate years.

11, 12. GENERAL ART HISTORY.—From the Greek age down to the time of the French Revolution. Main emphasis will be laid on the architecture and sculpture of the ancients and the painting of the Renaissance and later times. *Two hours a week.*

## HISTORY

PROFESSOR COLVIN; ASSOCIATE PROFESSOR WHITMORE, SUPERVISOR OF FRESHMAN WORK; MR. DOUGALL

For Ancient Civilization and History of the Near East see Courses 1, 2 and 55, 56 in the Department of Greek. Those courses are given credit in this department.

1. MEDIEVAL HISTORY.—A general course covering the period from the third century to 1500. Not open to freshmen. *Three hours a week.*

2. MODERN HISTORY.—Continuation of Course 1 to 1815, closing with a rapid sketch from 1815. Not open to freshmen. *Three hours a week.*

3. HISTORY OF ENGLAND.—From early times to the beginning of the Stuart period. Not open to freshmen. *Two hours a week.*

4. HISTORY OF ENGLAND.—Continuation of Course 3. From the beginning of the Stuart period to the present. Not open to freshmen. *Two hours a week.*

5. RECENT HISTORY.—This course is a general view from 1870. It is open to students from the Colleges of Technology and Agriculture only. *Two hours a week.*

6. EUROPEAN HISTORY SINCE 1815.—This course is open only to students who have had Courses 1 and 2 or 3 and 4. *Two hours a week.*

7, 8. UNITED STATES HISTORY AND GOVERNMENT.—This course begins with the close of the Revolution. It is open to freshmen only, and credit is not given except for a full year's work. *Three hours a week.*

9. HISTORY OF THE UNITED STATES.—The period from 1783 to 1865. This course is for upper class students who have not had Courses 7 and 8. *Two hours a week.*

10. HISTORY OF THE UNITED STATES.—A continuation of Course 9 from 1865 to the present time. *Two hours a week.*

51. THE RENAISSANCE.—This course takes up the Renaissance as an intellectual and social movement in Italy, and its expansion into France, England, and Germany. *Three hours a week.*

52. THE REFORMATION.—This course follows Course 51 and the two are always given the same year. *Three hours a week.*

53. MODERN CONTINENTAL EUROPE.—Study of a selected period since the Peace of Utrecht. *Three hours a week.*

54. MODERN ENGLAND.—Study of a selected period since the accession of the House of Hanover. *Three hours a week.*

55, 56. UNITED STATES HISTORY.—Studies of special periods, or of special phases of the development of American civilization. *Three hours a week.*



57, 58. HISTORICAL CRITICISM.—*One hour a week.*

59. SOCIAL AND INDUSTRIAL HISTORY OF ENGLAND.—This course begins with the medieval manor and comes down to the present time. *Two hours a week.*

60. SOCIAL AND INDUSTRIAL HISTORY OF THE UNITED STATES.—This course begins with early colonial history.

Courses 59 and 60 are planned in connection with courses in Economics and Sociology.

## LATIN

PROFESSOR CHASE

1. LIVY.—Selections from Livy, History of Rome. *Three hours a week.*

2. CICERO AND HORACE.—Cicero, De Senectute; Horace, Odes and Epodes. *Three hours a week.*

3. LATIN COMPOSITION, WITH REVIEW OF LATIN SYNTAX.—*One hour a week.*

4. LATIN COMPOSITION.—A continuation of Course 3. *One hour a week.*

5. TACITUS.—Reading and discussion of the Agricola and Germania. *Three hours a week.*

6. TERENCE AND PLAUTUS.—The Phormio of Terence; the Captivi and Trinummus of Plautus; study of early Latin and the development of Roman comedy. *Three hours a week.*

8. TEACHERS' COURSE.—Discussions of topics connected with the teaching of Latin in secondary schools. Study of selected passages of Cæsar, Cicero, and Vergil. *Two hours a week.*

9. CICERO.—Speeches against Catiline, for the Manilian Law, and Archias. Open to students who have completed two years' study of Latin in high school. *Five hours a week.*

10. VERGIL.—Aeneid, books i-vi. Open to students who have had less than four years of high school training. *Five hours a week.*

51. LATIN COMPOSITION.—Practice in writing Latin; study of Latin syntax. *One hour a week.*

52. LATIN COMPOSITION.—Practice in writing Latin; study of Latin rhetoric. *One hour a week.*

53. THE YOUNGER PLINY.—Reading of selected letters of Pliny; the Roman Empire. *Three hours a week.*



54. HORACE AND JUVENAL.—Reading of selections from the great satirists; study of Roman satire and social life. *Three hours a week.* Given in alternate years.

55. TACITUS.—Reading of the *Annales* and study of the reign of Tiberius. *Three hours a week.* Given in alternate years.

56. THE ROMAN ELEGIAIC POETS.—Selections from Catullus, Tibullus, Propertius, and Ovid; study of elegaic poetry. *Three hours a week.* Given in alternate years.

57, 58. ROMAN PHILOSOPHY.—Reading from Cicero's philosophical writings and from Lucretius; discussion of the leading schools of ancient philosophy. *Three hours a week.* Given in alternate years.

59, 60. ROMAN RHETORIC AND ORATORY.—Quintilian (selections from the *Institutio Oratoria*); Tacitus (*Dialogus de Oratoribus*); Cicero (selections from the *Brutus*, *De Oratore*, and *Orator*). Open to students who have taken Courses 1-4. *Three hours a week.* Given in alternate years.

103, 104. THE LATIN LANGUAGE.—A discussion of the fundamental principles of linguistic growth and change and of the relationship of Latin to other languages; Latin phonetics; the development of inflectional forms in Latin. Lectures and recitations. *One hour a week.* Given in alternate years.

105. ROMAN NUMISMATICS.—Practice in the use of coins as original sources for the study of history, mythology, archeology, etc. *One hour a week.* Given on sufficient demand.

107. SANSKRIT.—An elementary course in the classical language of India, with especial reference to the light it throws upon the history and grammar of the languages of Europe. *Two hours a week.* Given when asked for by a sufficient number of students.

108. SANSKRIT.—A continuation of Course 107, with more attention to the classical literature of India. *Two hours a week.*

## MATHEMATICS

PROFESSOR HART; PROFESSOR WILLARD; ASSOCIATE PROFESSOR BRYAN; MR. LUCAS; MR. BEALE; MR. LORING; MR. BROWN; MR. JENNESS

Students electing mathematics as a major subject are expected to take Courses 1, 2, 3, 5, 6, 7, 8 and to elect other courses to a total of forty semester hours. Courses in Astronomy 10, 15, 16, and 57, and Mechanics 1 and 52 may be taken as mathematics electives. Students majoring in mathematics and intending to teach are also advised to take several courses in physics.

1. TRIGONOMETRY.—The trigonometric functions; radian measure; functions of two or more angles; logarithms; solution of right and oblique triangles; trigonometric equations; inverse functions. *Three hours a week.*

2. SOLID GEOMETRY.—Solid and spherical geometry, including original demonstrations and the solution of numerical problems. *Three hours a week.* Open to all freshmen who did not offer it for admission.

3. COLLEGE ALGEBRA.—A brief review of radicals, the theory of exponents, quadratic equations, and the binomial theorem; determinants; theory of equations. *Two hours a week.*

4. SPHERICAL TRIGONOMETRY.—The elements of this subjects with problems and applications to spherical astronomy. *Two hours a week.*

5. ADVANCED ALGEBRA.—Topics in college algebra not covered in Course 3. Open to students who have taken Courses 1, 2, and 3, and to freshmen with especially good high school preparation. *Three hours a week.*

6. ANALYTIC GEOMETRY.—The point, line, circle, and conic sections; higher plane curves; elements of solid analytic geometry. Open to students who have had Courses 1 and 3 and the equivalent of Course 2. *Five hours a week.*

7. CALCULUS.—Differentiation of the elementary forms of algebraic and transcendental functions; successive differentiation; differentials; rates; maxima and minima. Open to students who have taken Courses 1, 2, 3, and 6. *Five hours a week.*

8. CALCULUS.—A continuation of Course 7. Integration of the elementary forms; integration as a summation; various methods of integration. Applications of differential and integral calculus. *Five hours a week.*

11. MATHEMATICS FOR AGRICULTURAL STUDENTS.—*Three hours a week.*

12. A CONTINUATION OF COURSE 11.—*Two hours a week.*

13. DIFFERENTIAL AND INTEGRAL CALCULUS.—A course given for students in Chemistry and for those in the College of Arts and Sciences who desire only a brief course in this subject. *Three hours a week.*

14. DIFFERENTIAL AND INTEGRAL CALCULUS.—A continuation of Course 13. *Two hours a week.*

17. MATHEMATICAL THEORY OF INVESTMENT.—A study of the progressions and the binomial theorem, logarithms and the graphical representation of functions with a view to their application to the theory of investment. Also a study of interest, both simple and compound, present value, discount, and annuities. Thruout the course, numerous problems are solved to illustrate the theory and to fix the principles involved. *Two hours a week.*

18. MATHEMATICAL THEORY OF INVESTMENT.—A continuation of Course 17. A study of amortization, the valuation of bonds, sinking funds and depreciation, building and loan associations; also the theory of probability and its application to life annuities and certain problems connected with life insurance. *Two hours a week.*

19, 20. THE THEORY OF STATISTICS.—A study of the theory of statistics and the application of statistical methods. *Two hours a week.*

21. SOLID GEOMETRY.—The equivalent of Course 2 but given in the fall semester.

51. ADVANCED ANALYTIC GEOMETRY.—A course for students who have completed Courses 5, 6, 7, and 8. *Three hours a week.* Given in 1922-23 and alternate years.

52. SOLID ANALYTIC GEOMETRY.—*Three hours a week.* Given in 1922-23 and alternate years.

53. ADVANCED CALCULUS.—This course is varied from time to time by using different texts. Open to students who have taken Courses 6, 7, and 8. *Three hours a week.* Given in 1923-24 and alternate years.

54. ADVANCED INTEGRAL CALCULUS.—A continuation of Course 53. *Three hours a week.* Given in 1922-23 and alternate years.

56. DIFFERENTIAL EQUATIONS.—Open to students who have taken Courses 7, 8. *Two hours a week.*

61. HISTORY OF MATHEMATICS.—Lectures and recitations. *Two hours a week.* Given in 1922-23 and alternate years.

63, 64. TEACHERS' COURSE IN MATHEMATICS.—A critical study of the methods of teaching high school mathematics, together with an investigation of fundamental principles. *Three hours a week.* Given in 1922-23 and alternate years.

65. THEORY OF EQUATIONS.—*Three hours a week.* Not given in 1922-23.

66. MODERN PROJECTIVE GEOMETRY.—A course based upon Oswald Veblen's text "Projective Geometry." Not given in 1922-23.

101. THEORY OF FUNCTIONS OF A COMPLEX VARIABLE.—An elementary course in the treatment of analytic functions. The course includes a consideration of infinite series, both single and double, infinite products, conformal representation, and a brief application of the theory to Fourier's series, the gamma, beta, and Bessel functions, and spherical harmonics. *Three hours a week.* Not given in 1922-23.

102. ELLIPTIC FUNCTIONS.—The Weierstrass and Jacobi functions. A brief treatment of transformation theory, and numerous examples. *Three hours a week.*

109. CELESTIAL MECHANICS.—An elementary course in the planetary theory. *Three hours a week.* Not given in 1922-23.

110. **HYDRODYNAMICS.**—The subject is treated in such a way as not to require the use of spherical harmonics. The course includes a brief treatment of some of the problems of motion in a fluid, including wave motion and rectilinear vortex motion. *Three hours a week.* Not given in 1922-23.

115. **FOURIER'S SERIES AND SPHERICAL HARMONIC ANALYSIS.**—Solution of partial differential equations of mathematical physics under assigned boundary conditions. Not given in 1922-23.

116. **THEORY OF AGGREGATES AND SELECTED TOPICS ON THEORY OF FUNCTIONS OF REAL VARIABLES.**—Not given in 1922-23.

117. **THEORY OF SUBSTITUTION GROUPS AND OF ALGEBRAIC FIELDS.**—Not given in 1922-23.

118. **THEORY OF TRANSFORMATION GROUPS (LIE THEORY).**—Not given in 1922-23.

119. **DIFFERENTIAL GEOMETRY.**—Metric theory of twisted curves and surfaces in space. Lectures and problems. Prerequisite, Solid analytical geometry. *Three hours a week.*

120. **CONTINUATION OF COURSE 119.**—*Three hours a week.*

## MUSIC

DIRECTOR SPRAGUE

3, 4. **MUSIC APPRECIATION.**—A study of the masterpieces of music from the standpoint of the listener. Analytical rather than historical. The vital forces and personalities in the development of the art noted briefly, but the chief stress laid upon the music itself. The evolution of form traced from the folk-song to the symphony. Lectures, illustrations, prescribed readings, reports. *Two hours a week.*

5, 6. **INTRODUCTORY HARMONY.**—The grammar of music, basic to an understanding of music structure. The foundation of the art of composition. A study of the conditions under which tones sound together and progress in combination. The invention and harmonization of melodies. A knowledge of notation required. *Two hours a week.*

7, 8. **ADVANCED HARMONY.**—Supplementary to Course 5, 6 and designed to apply to the more advanced problems of tone combination the training already obtained. Emphasis placed upon harmonic analysis, melody writing, and composition in the simpler forms. *Two hours a week.*

9, 10. **COUNTERPOINT.**—The art of combining melodies. A correlative with Harmony as the material of composition. Freedom and facility of expression in all the forms of music writing developed through its study and practice. Original work the chief aim of the course. Course 5, 6 a prerequisite. *Two hours a week.*

51. INTERPRETATION AND CONDUCTING.—A consideration of the problems of organizing bodies of singers and players; of time-beating; of program building; and of interpretation as applied to the rehearsal and performance of choral and orchestral music. Membership in the university chorus, orchestra, or band a prerequisite. Open to juniors and seniors of sufficient talent. *One hour a week.*

## PSYCHOLOGY

PROFESSOR HALVERSON

1. GENERAL PSYCHOLOGY.—Introductory course presenting facts and laws of mental life. Psychology of elementary mental processes and higher mental processes, supplemented by class demonstrations. Laboratory work required. *Three hours a week.*

50. GENETIC PSYCHOLOGY.—An account of mental development in man. General principles of evolution, tracing the bodily and mental growth of the human individual from birth to maturity. Course 49 is prerequisite. *Three hours a week.*

60. APPLIED PSYCHOLOGY.—Psychology applied to business, industry, advertising, and other fields. The application of psychological methods and tests in the selection and training of workers. Course 49 is prerequisite. *Three hours a week.*

61. APPLIED PSYCHOLOGY.—Similar to Course 60, but given for students in the College of Technology, without prerequisites. *Three hours a week.*

6. INTRODUCTION TO EXPERIMENTAL PSYCHOLOGY.—A course of lectures, demonstrations, class experiments, and discussions dealing with experimental psychology of the simpler and more complex mental processes. Students desiring to take this course must make personal application to head of department. *Three hours a week.*

## PHYSICS

PROFESSOR STEVENS; PROFESSOR FITCH; ASSISTANT PROFESSOR DAWSON;  
MR. BLESS; MR. GOULD

1, 2. GENERAL PHYSICS.—A course covering mechanics, heat, sound, magnetism, and electricity. Lectures and recitations. *Four hours a week.*

3, 4. LABORATORY PHYSICS.—A course covering mechanics, heat, sound, light, and electricity. Special attention is given to the reduction of



observations and the tabulation of results. Open to students taking either Courses 1 and 2 or Courses 5 and 6. †*Two hours a week.*

5, 6. GENERAL PHYSICS.—A course covering the ground of Courses 1 and 2 with more attention to the experimental and historical aspects, and less to the mathematical. *Three hours a week.*

8. HOUSEHOLD PHYSICS.—A course planned to meet the needs of students in Home Economics. Recitations, *four hours a week*; laboratory work, †*two hours a week.*

9. METEOROLOGY.—A course covering the essential principles of the subject including a study of instruments and weather predictions. *Three hours a week.*

10. METEOROLOGY.—A repetition of Course 9. *Three hours a week.*

11. METEOROLOGY.—A continuation of Course 9 dealing with special topics. Recitations, *one hour a week*; laboratory work, *two hours a week.*

13, 14. PHYSICS PROBLEMS.—The solution of problems in General Physics. Open to and especially recommended for students in Courses 1 and 2, or 5 and 6. *One hour a week.*

50. OPTICS.—An advanced course in the subject. Lectures; recitations. Mathematics 8 is a prerequisite. Given in 1922-23 and alternate years. *Three hours a week.*

51. OPTICS LABORATORY.—An advanced laboratory course in light. †*Four hours a week.*

52. MECHANICS AND HEAT LABORATORY.—An advanced laboratory course dealing more with the accuracy of results than Courses 3 and 4. †*Four hours a week.*

53. ELECTRICAL MEASUREMENTS.—An advanced laboratory course in the measurement of electrical quantities. Both direct and alternating currents are studied. †*Six hours a week.*

55. ELECTRICITY AND MAGNETISM.—Recitations on the mathematical theory of direct current phenomena. *Two hours a week.*

56. ELECTRICITY AND MAGNETISM.—A continuation of Course 55, dealing with alternating current phenomena. *Two hours a week.*

58. MATHEMATICAL PHYSICS.—The application of mathematical methods to the treatment of problems in physics. Given in 1923-24 and alternate years. *Two hours a week.*

60. SOUND.—Lectures and recitations. Given in 1922-23 and alternate years. *Two hours a week.*

61. HEAT.—An advanced course. Given in 1923-24 and alternate years. *Three hours a week.*

63. THEORY OF MEASUREMENTS.—This course is based upon the theory of least squares, and covers such topics as adjustment of observa-



tions, propagation of errors, empirical formulae, and graphic methods. *Two hours a week.*

65. VACUUM TUBES.—Lectures and recitations covering the theory of the vacuum tube as used in amplifiers, detectors, oscillators, etc. Course 2 and Mathematics 8 are prerequisites. *Two hours a week.*

66. VACUUM TUBE LABORATORY.—Laboratory work with vacuum tubes covering the work of Course 65. †*Two hours a week.*

69. RADIO-ACTIVITY.—A brief survey of the principal facts connected with radio-activity. Given in 1922-23 and alternate years. Lectures, *one hour a week*; laboratory work, †*two hours a week.*

71. THERMODYNAMICS.—An elementary course. *Two hours a week.*

101, 102. SPECIAL LABORATORY COURSES.—A subject for investigation is assigned or some published research is repeated. Open only to graduate students. †*Four or more hours a week.*

## PUBLIC SPEAKING

ASSOCIATE PROFESSOR BAILEY; MR. WALLACE

1, 2. PUBLIC SPEAKING.—This course trains the student to organize his material and to deliver short speeches from the platform. Extemporaneous speaking on various subjects is especially emphasized. *One hour a week.*

3, 4. DEBATING.—A study of the principles of argumentation and debate. Public questions or technical questions of general interest are debated and discussed. Course 1, 2 is a prerequisite. Technical students who continue Public Speaking are expected to take this course. *One hour a week.*

5. ENGLISH ORATORS.—A study of representative orations; structure of the oration; qualities of a good oration; the preparation and delivery of speeches. Course 1, 2 is a prerequisite. *One hour a week.*

6. AMERICAN ORATORS.—Similar to Course 7 but dealing with American orators. *One hour a week.*

7, 8. ELOCUTION (ORAL READING).—The reading and rendering of various selections of merit form an important part of the work. This course aims to create the art side of public speaking. *One hour a week.*

8a. PUBLIC SPEAKING.—Practical public speaking for women. Quite similar in general character to Course 1. *One hour a week.*

9, 10. DRAMATIC PRODUCTION.—A critical study of several plays. Presentation of plays in the class room, and some public exhibition. A consideration of plays suitable for high school production. *Two hours a week.*

## SPANISH AND ITALIAN

PROFESSOR PETERSON; MISS ARNOLD; MR. STRAUSBAUGH; MR. GROSS

### Spanish

Major students in Spanish are required to complete the courses in Advanced Composition and the History of Spanish Literature. The requirement of thirty semester hours for a master's degree in Spanish may be met in one year by completing a minimum of twelve hours of advanced work in that language, by writing a satisfactory thesis on some topic connected with Spanish for which six hours' credit will be allowed, by completing the remainder of the required work in not more than two minor subjects, and by passing an oral examination covering all the work of the year.

1, 2. **ELEMENTARY SPANISH.**—In this course stress will be laid upon conversation as well as upon grammar, reading and composition. The instructor will insist upon careful pronunciation and accurate translation. During the spring semester collateral reading may be assigned at the discretion of the instructor. *Five hours a week.*

3, 4. **INTERMEDIATE SPANISH.**—For second year students. The chief aim of these courses is to acquire sufficient facility in the use of the language so as to be able to read at sight ordinary prose, to gain some acquaintance with present day literature, and to prepare the way for the study of the classics. Collateral reading will be assigned. There will be constant oral practice based on the texts read and much attention will be given to the mastery of idioms. *Three hours a week.*

5, 6. **ELEMENTARY COMPOSITION AND CONVERSATION.**—This course may be taken by second year students who are pursuing at the same time Courses 3 and 4. Stress will be laid on review of the grammar, dictation and composition. Students may be required to memorize selections in prose and verse. Attention will be given to the acquisition of a practical vocabulary. *Two hours a week.*

7, 8. **COMMERCIAL SPANISH.**—For third year students. The object of this course is to acquaint the student with the forms of private and commercial correspondence and the vocabulary used in the business world. Considerable reading of selections dealing with industrial and commercial life will be required. Given in alternate years; not offered in 1922-23. *Two hours a week.*

9. **THE HISPANIC AMERICAN COUNTRIES.**—After a survey of the history of the Hispanic nations of the New World their civilization will be

considered in its intellectual and moral as well as its material aspects. A study will be made of the industries, commerce, customs, social institutions, literature and ideals of the countries where Spanish and Portuguese are spoken. Lectures, assigned reading and recitations. No reading in Spanish is required, and students who complete this course may receive credits for the social science group but not for language. *Two hours a week.*

51, 52. THE SPANISH NOVEL.—Selections from Cervantes and from representative novelists of the modern period such as Fernán Caballero, Valera, Pérez Galdós, Pardo Bazán and Blasco Ibáñez form the subject of study. Collateral reading, reports and lectures on the history of the novel. Open to students who have completed twenty hours of Spanish. These courses alternate with Courses 55 and 56. *Three hours a week.*

53, 54. ADVANCED COMPOSITION AND CONVERSATION.—A continuation of Courses 5 and 6 for third or fourth year students. Translation from English to Spanish, original compositions on assigned subjects, and oral work of different kinds to secure facility in expression form the basis of these courses. *Two hours a week.*

55, 56. THE SPANISH DRAMA.—These courses consist of a study of the development of the drama and the reading of selected plays representing the "Golden Age," the neo-classic period, the Romantic movement and contemporary dramatists. Lectures, collateral reading and reports. Open to students who have completed twenty hours of Spanish. These courses alternate with Courses 51 and 52. *Three hours a week.*

57, 58. HISTORY OF SPANISH LITERATURE.—The main facts and theories of the subject will be presented by means of lectures in Spanish. Works of representative Spanish authors and modern books of criticism will be assigned for reading. Some attention will be given at the end to Spanish American literature. *Three hours a week.*

66. THE TEACHING OF SPANISH.—The course is devoted to a consideration of problems and methods of teaching Spanish in the secondary school and of the necessary equipment of the teacher for this work. It includes a study of the characteristic Spanish institutions and of the geography of Spain, a systematic presentation of the principles of Spanish phonetics, the examination of text books, and attention to bibliography. Lectures, investigations, and reports. Open to juniors and seniors. Given in the spring semester of 1923 and alternate years. *Three hours a week.*

101. OLD SPANISH.—The student will study the laws governing the development of Spanish from popular Latin, and its growth from the beginning to the present day. As many selections will be read from early authors as time permits. Some acquaintance with Latin is presupposed. *Two hours a week.*

## Italian

1, 2. ELEMENTARY ITALIAN.—This is a course in Italian grammar, reading, and composition designed for those who wish to begin as soon as possible the study of the Italian classics. Students will not be permitted to elect Elementary Italian and Elementary Spanish in the same year. *Three hours a week.*

30. MODERN ITALIAN PROSE.—Selections from representative authors will be studied in an endeavor to acquire as much facility in reading as possible. Review of the grammar, composition and collateral reading. Offered in alternate years. *Three hours a week.*

52. DANTE.—The basis of the reading in this course will be the *Inferno*. The life and times of Dante and his influence in literature will be treated by means of lectures and reports. Open to students who have taken Course 3 or an equivalent. Given in alternate years. *Three hours a week.*

## College of Technology

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### FACULTY OF INSTRUCTION

- HAROLD SHERBURNE BOARDMAN, C.E., D.Eng., *Dean of the College of Technology and Professor of Civil Engineering*
- CHARLES PARTRIDGE WESTON, C.E., M.A., *Professor of Mechanics*
- WILLIAM EDWARD BARROWS, E.E., *Professor of Electrical Engineering*
- WILLIAM JORDAN SWEETSER, S.B., *Professor of Mechanical Engineering*
- CHARLES ANDREW BRAUTLECHT, Ph.D., *Professor of Chemistry*
- ARCHER LEWIS GROVER, B.M.E., B.S., *Professor of Engineering Drawing*
- EMBERT HIRAM SPRAGUE, B.S., *Professor of Civil Engineering*
- BENJAMIN CALVIN KENT, B.S., *Associate Professor of Mechanical Engineering*
- ARTHUR ST. JOHN HILL, E.E., *Associate Professor of Electrical Engineering*
- ALPHEUS CROSBY LYON, B.S., C.E., *Associate Professor of Civil Engineering*
- BERTRAND FRENCH BRANN, M.S., *Associate Professor of Chemistry*
- JASON LESLIE MERRILL, Ph.B., B.S., *Associate Professor of Chemistry*
- HAROLD WALTER LEAVITT, M.S., *Associate Professor of Civil Engineering*
- WALTER DAVIS EMERSON, B.S., *Assistant Professor of Mechanical Engineering*
- WALTER JOSEPH CREAMER, E.E., *Assistant Professor of Electrical Engineering*
- PLATT ASHLEY PEARSALL, B.S., *Assistant Professor of Chemistry*
- EVERETT WILLARD DAVEE, *Instructor in Mechanical Engineering*
- JAMES STROTHARD BROOKS, *Instructor in Engineering Drawing*
- WESTON SUMNER EVANS, B.S., *Instructor in Civil Engineering*
- EVERETT JOSHUA FELKER, *Instructor in Civil Engineering*
- HARRY ROY PERKINS, *Instructor in Mechanical Engineering*
- HARRY DEXTER WATSON, B.S., *Instructor in Mechanical Engineering*
- HAROLD CHANDLER WHITE, B.S., *Instructor in Chemistry*
- WALTER WILLIAM PURDY, B.S., *Instructor in Chemistry*
- EVERETT LOUIS ROBERTS, B.S., *Instructor in Electrical Engineering*
- GEORGE MERVIL SEELEY, A.B., *Instructor in Chemistry*
- RICHARD EUGENE DOWNING, S.B., *Instructor in Electrical Engineering*
- ALBERT EDWIN JOHNSON, B.S., *Instructor in Engineering Drawing*
- KENNETH GERALD MERRIAM, S.B., *Instructor in Mechanical Engineering*
- FLOYD FRANCIS OPLINGER, M.S., *Instructor in Chemistry*
- RALPH ALLEN WILKINS, B.S., *Instructor in Chemistry*
- NORMAN EMME WOLDMAN, M.S., *Instructor in Chemistry*
- HERBERT BURR ABBOTT, *Mechanician in Mechanical Engineering*
- LEO DAY, *Assistant in State Highway Laboratory*



## GENERAL INFORMATION

The College of Technology provides technical instruction in chemistry, and in various branches of engineering. The number of hours required for graduation in this college is one hundred and fifty. In such technical curricula it is necessary to prescribe a large proportion of the work; but some elective studies may be chosen in the junior and senior years. Under each of the curricula described below is given a tabulated statement of the subjects pursued and the amount of work required. The college comprises:

Chemical Engineering Curriculum  
Chemistry Curriculum  
Civil Engineering Curriculum  
Electrical Engineering Curriculum  
Mechanical Engineering Curriculum

The following requirements for graduation are common to all curricula in this college:

1. Mathematics, the equivalent of two years, five hours a week except in Chemistry and Chemical Engineering, where one and two-fifths years are required.

2. Science (chemistry, physics, or biology), the equivalent of one year, five hours a week, of which time an important part must be occupied with laboratory work.

3. Language: English, the equivalent of one year, six hours a week; foreign language: beginning with the fall of 1923 a student entering the College of Technology will be required to present two entrance credits in each of two different foreign languages (Latin and French preferred), or three entrance credits in one modern foreign language.

Students in civil engineering, electrical engineering, and mechanical engineering will not be required to take further foreign language in college. Students in chemistry and chemical engineering may be excused from further foreign language at the discretion of the major instructor.

At graduation in any of these curricula the student receives the degree of Bachelor of Science.

## Maine Technology Experiment Station

By action of the Board of Trustees, June, 1915, the establishment of a Maine Technology Experiment Station was authorized. This station is under the direct control of the President of the University, the Dean of the College of Technology, and the heads of the Departments of Chemistry and Engineering. The Station carries on practical research in engineering subjects, makes investigations for State Boards and muni-



principal authorities, furnishes scientific information to the industries of the State, and distributes accurate scientific knowledge to the people. Bulletins are issued during the college year.

## Chemical Engineering Curriculum

In view of the rapid development of the application of Chemistry in manufacturing, this curriculum is offered to furnish training in engineering together with specialization in chemistry. The first two years are almost identical with those under the Chemistry Curriculum, but in the junior and senior years the students take, in part, fundamental courses in mechanical and electrical engineering, etc. while, in the Chemistry Curriculum, the student takes subjects having a chemical and biological aspect. The training is thus essentially chemical, and the graduates are primarily chemists having a knowledge of mechanical and electrical engineering, etc. Such students will be prepared to enter the profession of chemical engineering and to occupy positions as chief analysts, production foremen, research chemists and superintendents' assistants in manufacturing establishments such as metallurgical works, bleacheries, dye houses, chemical plants, gas works, sugar refineries, pulp and paper mills, etc.

### Option I. Regular Curriculum

#### FRESHMAN YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Chemistry 1 or 3.....	4	Chemistry 2 or 4.....	4
Chemistry 5 or 7, †2.....		Chemistry 6 or 8, †2.....	
Drawing 1, *6.....	2	Drawing 2, *6.....	2
English 1.....	3	English 2.....	3
German or French or.....		German or French or.....	
U. S. History & Government 7		U. S. History & Govt. 8....	
Mathematics 1 and 3.....	5	Mathematics 6.....	5
Military 1, †3.....	1½	Military 2, †3.....	1½
Physical Training.....	½	Physical Training.....	1

#### SOPHOMORE YEAR

Chemistry 11.....	6	Chemistry 40.....	5
Chemistry 17.....	1	German 4, French 4,	
German 3, French 3,		or Economics 2b.....	
or Economics 1b.....		Mathematics 14.....	2
Mathematics 13.....	3	Mechanical Eng. 4.....	1½
Physics 1-3.....	5	Mechanical Eng. 28.....	2
Military 3.....	2	Physics 2-4.....	5
		Military 4.....	2

## JUNIOR YEAR

<i>Fall Semester</i>		Hours	<i>Spring Semester</i>		Hours
Subject			Subject		
Chemistry 51.....		5	Chemistry 52.....		5
Chemistry 61.....		5	Chemistry 56.....		3
Chemistry 71.....		3	Chemistry 62.....		5
English 9.....		2	Chemistry 72.....		3
German 15 or Biochemistry 3..		2	Chemistry 74, †4.....		2
Mechanical Eng. 83.....		3	Electrical Eng. 30.....		2

## SENIOR YEAR

Chemistry 77.....	3	Chemistry 78.....	3
Chemistry 93.....	1	Chemistry 80.....	
Chemistry 95.....	3	Chemistry 98.....	2
Chemistry 97.....	2	Mechanics 2.....	3
Electrical Eng. 31.....	2	At least four hours from	
Electrical Eng. 33.....	1½	the following:	
English 5.....	2	Chemistry 88.....	2
Mechanical Eng. 75.....	1½	Chemistry 92.....	2
Physics 53, †6.....	3	Chemistry 94.....	2
		Mechanical Eng. 98.....	2

*Option II***Paper and Pulp Curriculum**FRESHMAN YEAR *Same as Option I*

## SOPHOMORE YEAR

Chemistry 11.....	6	Chemistry 40.....	5
Chemistry 17.....	1	German 4, French 4,	
Biology 17.....	1	or Economics 2b.....	
German 3, French 3,		Mathematics 14.....	2
or Economics 1b.....		Mechanical Eng. 4.....	1½
Mathematics 13.....	3	Mechanical Eng. 28.....	2
Physics 1-3.....	5	Physics 2-4.....	5
Military 3.....	2	Military 4.....	2

## JUNIOR YEAR

<i>Fall Semester</i>			<i>Spring Semester</i>		
Subject		Hours	Subject		Hours
Chemistry 51.....		5	Chemistry 52.....		5
Chemistry 61.....		5	Chemistry 62.....		5
Chemistry 65.....		1	Chemistry 66.....		1
Chemistry 67.....		2	Chemistry 68.....		2
Chemistry 71.....		3	Chemistry 72.....		3
German 15 or Biochemistry 3..		2	Chemistry 74.....		2
Mechanical Eng. 83.....		3	Electrical Eng. 30.....		2

## SENIOR YEAR

Chemistry 75.....	2	Chemistry 78.....	3
Chemistry 77.....	3	Chemistry 80.....	
Chemistry 87.....	2	Chemistry 82.....	2
Chemistry 97.....	2	Chemistry 86.....	2
Electrical Eng. 31.....	2	Chemistry 98.....	2
Electrical Eng. 33.....	1½	At least four hours from	
English 5.....	2	the following:	
English 9.....	2	Chemistry 92.....	2
Forestry 9.....	1	Chemistry 94.....	2
Mechanical Eng. 75.....	1½	Mechanical Eng. 98.....	2

At graduation the chemical engineering student receives the degree of Bachelor of Science. Upon the completion of one year's prescribed work in residence, including the presentation of a satisfactory thesis, he receives the degree of Master of Science. Three years after graduation, upon presentation of a satisfactory thesis and proofs of suitable professional work, he may receive the degree of Chemical Engineer.

## Chemistry Curriculum

This curriculum is designed to give the student not only a thoro technical training, but also a breadth of education which will enable him readily to undertake the great variety of problems which naturally present themselves to a chemist. It differs from the Chemical Engineering curriculum in that the student takes some courses having a biological aspect, (bacteriology, biological chemistry, etc.) rather than those of an engineering type. The curriculum is a broad one and, when completed, it prepares the student to teach, or for the profession of analytical research chemist in experiment stations, food laboratories, dye, chemical fertilizer and tanning plants; metallurgical, rubber, and electric machinery manufactories; and the general consulting and analytical work of a professional chemist.

FRESHMAN YEAR *Same as in Chemical Engineering*

## SOPHOMORE YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Chemistry 11.....	6	Chemistry 40.....	5
Chemistry 17.....	1	*Chemistry 42.....	1
German 3, French 3, or Economics 1b.....		Bacteriology 2, *6.....	3
Mathematics 13.....	3	German 4, French 4, or Economics 2b.....	
Physics 1-3.....	5	Mathematics 14.....	2
Public Speaking 1.....	1	Physics 2-4.....	5
Military 3.....	2	Military 4.....	2

## JUNIOR YEAR

Chemistry 51.....	5	Chemistry 52.....	5
Chemistry 61.....	5	Chemistry 56.....	2
Chemistry 71.....	3	Chemistry 58.....	2
English 9.....	2	Chemistry 62.....	5
German 15 or Biochemistry 3..	2	Chemistry 72.....	3
Physics 71.....	2	Chemistry 74.....	2
		Physics 52.....	2

## SENIOR YEAR

Chemistry 77.....	3	Chemistry 78.....	3
Chemistry 79.....	5	Chemistry 80.....	
Chemistry 91.....	3	Biochemistry 52, †4.....	2
Chemistry 93.....	1	Chemistry 98.....	2
Chemistry 97.....	2	At least five hours including four hours from the following:	
Biochemistry 51.....	2	Chemistry 88.....	2
English 5.....	2	Chemistry 92.....	2
Option of		Chemistry 94.....	2
Chemistry 89.....	2	Biochemistry 60, †8.....	4
Chemistry 95.....	3	Mechanical Eng. 98.....	2

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\*Omitted 1922-23 and every fourth year.

## Civil Engineering Curriculum

The object of the Curriculum in Civil Engineering is to give the student as thoro a knowledge as possible of the principles underlying the profession. The attempt is made to give the student not only a technical education, but to form the basis for a liberal one as well.

The methods of instruction are recitations, lectures, original problems, work in the testing laboratories, field practice, and designing. Effort is made to acquaint the student with the best engineering practice and with the standard engineering literature.

The work of the first year is the same for all engineering students, especial attention being paid to mathematics and English. The technical work begins in the fall semester of the second year with field work and the study of surveying. This technical work is gradually increased, until the last year when it is nearly professional. At the beginning of the fourth year an opportunity is offered to specialize slightly along one of three lines. The first, called Option 1, consists of work in hydraulic engineering and electrical transmission, the second, Option 2, consists of work in railroad engineering, while Option 3 consists of work in highway engineering.

### REQUIREMENTS FOR GRADUATION

#### FRESHMAN YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Chemistry 1 or 3.....	3	Chemistry 2 or 4.....	3
Chemistry 5, †2.....	1	Chemistry 6, †2.....	1
Drawing 1, *6.....	2	Drawing 2, *6.....	2
English 1.....	3	English 2.....	3
Mathematics 1 and 3.....	5	Mathematics 6.....	5
Military 1, †3.....	1½	Military 2, †3.....	1½
Physical Training.....	½	Physical Training.....	1
U. S. History and Govt. 7....	3	U. S. History & Govt. 8....	3

#### SOPHOMORE YEAR

Civil Engineering 1 and 7....	3½	Civil Engineering 2, 4.....	2½
Drawing 3, *6.....	2	Drawing 4, *6.....	2
Public Speaking 1.....	1	Public Speaking 2.....	1
Mathematics 7.....	5	Mathematics 8.....	5
Military 3.....	2	Military 4, 3.....	2
Physics 1.....	4	Physics 2.....	4
Physics 3, †2.....	1	Physics 4, †2.....	1
Economics 1b.....	2	Physics 52.....	2
		Economics 2b.....	2

## JUNIOR YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Civil Engineering 9.....	2	Civil Engineering 20.....	2
Civil Engineering 25.....	2	Civil Engineering 22 and 24	2
Civil Engineering 21, 23, *6...	2	Civil Engineering 26.....	3
Civil Engineering 29.....	2	Civil Engineering 28.....	3
Geology 3.....	2	Civil Engineering 30.....	2
Mechanics 51.....	5	Civil Engineering 54, †2....	1
Astronomy 57.....	3	Mechanics 52.....	5
Public Speaking 3.....	1	Mechanical Eng. 74, †2....	1
		Public Speaking 4.....	1

## SENIOR YEAR

Civil Engineering 57.....	3	Civil Engineering 58.....	3
Civil Engineering 59, †9.....	4½	Civil Engineering 60.....	2
Civil Engineering 61.....	1	Civil Engineering 62, †6....	3
Civil Engineering 55 and 51		Civil Engineering 52 and	
(Option 1).....	4	Electrical Engineering 42	
Civil Engineering 63 and 53		(Option 1).....	4
(Option 2).....	4	Civil Engineering 64 and 66	
History 5.....	2	(Option 2).....	4
English 5.....	2	Civil Engineering 68 and 72	
		(Option 3).....	4
		Economics 12.....	3

At graduation the student receives the degree of Bachelor of Science. Upon the completion of one year's prescribed work in residence, including the presentation of a satisfactory thesis, he receives the degree of Master of Science. Three years after graduation, upon the presentation of a satisfactory thesis and proofs of professional work, he may receive the degree of Civil Engineer.

### Electrical Engineering Curriculum

This curriculum is intended to provide the student with a thorough understanding of the underlying principles of electrical engineering and to develop an ability to solve problems of an engineering nature from commercial as well as technical premises. To accomplish this, the student first studies the various electrical laws and methods of electrical measurements and correlates them with various laws previously assimilated in the study of physics and mathematics. These studies are followed by more advanced courses involving the fundamental electrical laws and



theories and showing their application to the design, operation, and performance of electrical apparatus such as is used in the generation of electrical energy or in transforming electrical energy into mechanical energy for the various commercial requirements.

Courses in Telephoné and Radio Engineering are offered to those wishing to continue work in communication engineering after graduation.

It is the endeavor of the curriculum to acquaint the student with contemporary engineering practice, and, by persistent association of abstract analysis with practical problems, to equip him with the fundamentals of a successful career. Stress is laid upon the systematic reading of technical periodicals and the acquirement of a reference library. Effort is made to have lectures by active engineers and alumni following their profession, thus bringing the student into more intimate contact with the engineering world.

In addition to the purely electrical subjects, the student takes the customary work in mathematics, physics, mechanics, shop, drawing, and allied engineering courses, together with the cultural subjects enumerated below.

## FRESHMAN YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Chemistry 1 or 3.....	3	Chemistry 2 or 4.....	3
Chemistry 5, †2.....	1	Chemistry 6, †2.....	1
Drawing 1, *6.....	2	Drawing 2, *6.....	2
English 1.....	3	English 2.....	3
Mathematics 1 and 3.....	5	Mathematics 6.....	5
Military 1, †3.....	1½	Military 2, †3.....	1½
Physical Training.....	½	Physical Training.....	1
U. S. History and Govt. 7....	3	U. S. History & Govt. 8....	3

## SOPHOMORE YEAR

Electrical Eng. 1.....	2	Electrical Eng. 2.....	3
Drawing 3, *6.....	2	Drawing 4, *6.....	2
Economics 1b.....	2	Economics 2b.....	2
Mathematics 7.....	5	Mathematics 8.....	5
Military 3.....	2	Military 4.....	2
Physics 1.....	4	Physics 2.....	4
Physics 3, †2.....	1	Physics 4, †2.....	1
Public Speaking 1.....	1	Public Speaking 2.....	1
Civil Eng. 3.....	½		
Civil Eng. 5, *3.....	½		

## JUNIOR YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Electrical Eng. 5.....	3	Electrical Eng. 6.....	4
Electrical Eng. 7.....	1	Electrical Eng. 8.....	1
Electrical Eng. 7, †3.....	1½	Electrical Eng. 8, †3.....	1½
Mechanics 51.....	5	Electrical Eng. 20 or 22.....	2
Mechanical Eng. 9, *4.....	1½	Mechanics 52.....	5
Mechanical Eng. 27.....	3	Mechanical Eng. 10, *4.....	1½
Physics 53, †6.....	3	Mechanical Eng. 84.....	3
Public Speaking 3.....	1	Public Speaking 4.....	1

## SENIOR YEAR

Electrical Eng. 51.....	4	Electrical Eng. 52.....	4
Electrical Eng. 75.....	1	Electrical Eng. 54, †2.....	1
Electrical Eng. 75, †3.....	1½	Electrical Eng. 76.....	1
Civil Eng. 33.....	1	Electrical Eng. 76, †3.....	1½
English 5.....	2	Inspection Trip 78.....	
Mechanical Eng. 77, †3.....	1½	Thesis 80.....	
Mechanical Eng. 85.....	3		
Options		Options	
Electrical Eng. 61.....	2	Electrical Eng. 56.....	2
Electrical Eng. 65.....	2	Electrical Eng. 64.....	2
Electrical Eng. 67, †3.....	1½	Electrical Eng. 66.....	2
Electrical Eng. 69.....	2	Economics 12.....	3
Electrical Eng. 77.....	1	Mechanical Eng. 98.....	2
Civil Eng. 35.....	2		

## Mechanical Engineering Curriculum

The field of the mechanical engineer embraces all work involving the design, construction, or installation of machinery, either for manufacturing, transportation, or power generation; the design, manufacture, and installation of heating and ventilating or refrigerating equipment; the superintendence or management of factories, power plants, and motive power; the equipment of railways, and similar work.

The Mechanical Engineering Curriculum is arranged to equip men as well as possible in four years' time to enter any of these lines of work.

It is not possible to develop the student into an expert engineer in any branch of the profession. It is also not possible, in general, to foresee what will be his ultimate occupation. Accordingly, those subjects which are fundamental to all engineering work and which may best be learned in college are most emphasized in the required courses while those

subjects which are best acquired in practical work are left for the engineer graduate to obtain in actual practice. An endeavor is made, however, to give the more advanced technical courses such a trend as to make the period of adjustment of the graduate to practical engineering conditions short, and his acquirement of the knowledge necessary for advancement rapid.

The theoretical work is taught by lectures and recitations. The texts are carefully chosen and are supplemented, where necessary to illustrate more recent practice, by explanation and examples given by the instructor. Numerous problems are assigned for work outside the classroom to make sure the student can apply the principles learned.

Courses in the shops and laboratories illustrate the application of matter learned in the recitation work, and also teach methods of construction, operation, and testing of apparatus by direct contact with it. In the drawing rooms, application of theories to work in design are taught, together with methods and requirements for the production of neat and accurate engineering drawings.

Thoro instruction is given in the theory and operation of both direct and alternating current electrical machinery, with ample practice in the electrical laboratory. Sufficient time is devoted to recitation and field work in surveying to give familiarity with instruments and methods. Lectures by practical engineers and trips of inspection to engineering works help to bring before the student the conditions existing in practice.

## REQUIREMENTS FOR GRADUATION

### FRESHMAN YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Chemistry 1 or 3.....	3	Chemistry 2 or 4.....	3
Chemistry 5, †2.....	1	Chemistry 6, †2.....	1
Drawing 1, *6.....	2	Drawing 2, *6.....	2
English 1.....	3	English 2.....	3
Mathematics 1-3.....	5	Mathematics 6.....	5
Military 1, †3.....	1½	Military 2, †3.....	1½
Physical Training.....	½	Physical Training *2.....	1
U. S. History and Govt. 7....	3	U. S. History & Govt. 8....	3

## SOPHOMORE YEAR

<i>Fall Semester</i>		<i>Spring Semester</i>	
Subject	Hours	Subject	Hours
Economics 1b .....	2	Economics 2b.....	2
Drawing 3, *6.....	2	Drawing 4, *6.....	2
Mathematics 7.....	5	Mathematics 8.....	5
Mechanical Eng. 1, *3.....	1	Mechanical Eng. 2, *6.....	2
Mechanical Eng. 3, *3.....	1	Military 4, *3.....	2
Mechanical Eng. 23.....	1	Physics 2.....	4
Military 3, *3.....	2	Physics 4, †2.....	1
Civil Eng. 3-5.....	1	Physics 52, †4.....	2
Physics 1.....	4	Public Speaking 2.....	1
Physics 3, †2.....	1		
Public Speaking 1.....	1		

## JUNIOR YEAR

Mechanical Eng. 7, *6.....	2	Mechanical Eng. 8, *6.....	2
Mechanical Eng. 25, *3, 3.....	4	Mechanical Eng. 66.....	3
Mechanical Eng. 31.....	2	Mechanical Eng. 68, *3, 2... 3	
Mechanical Eng. 69, †2.....	1	Mechanical Eng. 70, †3.....	1½
Mechanical Eng. 79.....	3	Mechanical Eng. 80.....	3
Mechanics 51.....	5	Mechanics 52.....	5
Public Speaking 3.....	1	Public Speaking 4.....	1

## SENIOR YEAR

Mechanical Eng. 81.....	3	Mechanical Eng. 72, †3.....	1½
Mechanical Eng. 71, †3.....	1½	Mechanical Eng. 82.....	2
Mechanical Eng. 67, *6.....	2	Mechanical Eng. 88, *6.....	2
Civil Engineering 33.....	1	Mechanical Eng. 92.....	1½
Civil Engineering 35.....	2	*Mechanical Eng. 94.....	1½
Civil Engineering 67.....	2	Electrical Eng. 36.....	2
Electrical Engineering 35.....	2	Electrical Eng. 38, †3.....	1½
English 5.....	2	Mechanical Eng. 96.....	1
*Psychology 61.....	3	Mechanical Eng. 98.....	2
		Inspection Trip.....	
		Thesis .....	

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\*Substitution may be offered for this course if approved by the major instructor.

## Departments of Instruction

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NOTE. A star (\*) before the time designated for a course indicates that three hours of actual work are required to obtain credit for one hour; a dagger (†) indicates that two hours are required.

*Courses designated by an odd number are given in the fall semester; those designated by an even number, in the spring semester.*

*Courses numbered 1-50 are for undergraduates only; courses numbered 50-100 are for graduates and undergraduates; courses numbered 100 and above are for graduates.*

### CHEMISTRY

PROFESSOR BRAUTLECHT; ASSOCIATE PROFESSOR BRANN; ASSOCIATE PROFESSOR MERRILL; ASSISTANT PROFESSOR PEARSALL; MR. WHITE; MR. PURDY; MR. SEELEY; MR. OPLINGER; MR. WILKINS; MR. WOLDMAN

1-5, 2-6. GENERAL CHEMISTRY.—This course deals with the general principles of the science. First semester: lecture, *one hour a week*; recitations, *two hours a week*; laboratory, *†two hours a week*. Second semester: lectures and recitations, *two hours a week*; laboratory, *†four hours a week*. Courses 1-5 and 2-6 or 3-7 and 4-8 constitute the first year's work in chemistry.

3-7, 4-8. ADVANCED GENERAL CHEMISTRY.—A course similar to Course 1-5, 2-6 but for students who have had a thorough course in elementary chemistry. Lecture and recitation, *three or two hours a week*; laboratory, *†two or four hours a week* in inorganic preparations.

(Students to enroll in Courses 3-7 and 4-8, must, at time of registration, present their original laboratory note book in elementary chemistry, approved by, and having the signature of, their previous instructor.)

11. QUALITATIVE ANALYSIS.—This course includes the general reactions of the metals and acids with their qualitative separation and identification. Lectures, recitations, and laboratory work. *Twelve hours a week*.

13. PRE-MEDICAL QUALITATIVE ANALYSIS.—A somewhat shorter course than Ch 11 for pre-medical students. *Ten hours a week*.

16. PRE-MEDICAL ORGANIC CHEMISTRY.—An elementary course giving in one semester the fundamentals of the subject. Students who have the time available are advised to take Courses 51, 52. Prerequisite, General Chemistry and qualitative analysis. Recitations and lectures, *three hours a week*; laboratory, *†four hours a week*.

17. HISTORY OF CHEMISTRY.—*One hour a week.*

40. ELEMENTARY QUANTITATIVE ANALYSIS.—An introductory course illustrating the fundamental principles of gravimetric methods. Prerequisite, Course 11. Classroom, *one hour a week*; laboratory, *†eight hours a week.*

42. GENERAL APPLICATIONS OF CHEMISTRY.—Lecture course. *One hour a week.* Not given during semester when Chemistry Department gives the General Lecture Course.

48. MINERALOGY AND CRYSTALLOGRAPHY.—Prerequisite, Ch 11. *†Four hours a week.* May be given in alternate years.

51, 52. ORGANIC CHEMISTRY.—Lectures, recitations, and laboratory work. Course 11 is prerequisite. For juniors. Class room, *three hours a week*; laboratory, *†four hours a week.*

56. METALLURGY.—An introductory study dealing with iron, steel, and common metals. *Three hours a week.*

59. FUEL AND GAS ANALYSIS.—Course 40 is a prerequisite. *†Four hours a week.* (May be given in abbreviated form in Ch 79.)

61. ADVANCED QUANTITATIVE ANALYSIS.—A study of calibration methods, volumetric analysis, and the application of volumetric methods. Course 40 is a prerequisite. Class room, *one hour a week*; laboratory, *†eight hours a week.*

62. ELEMENTARY TECHNICAL ANALYSIS.—Application of gravimetric and volumetric methods of analysis to some of the more difficult problems of separation and determination. Course 61 is a prerequisite. Class room, *one hour a week*; laboratory, *†eight hours a week.*

65. PAPER TECHNOLOGY.—A lecture course on the manufacture of paper and the chemical engineering involved in present day paper making and uses. Course 40 is prerequisite. *One hour a week.*

66. PULP TECHNOLOGY.—A lecture course on the processes of manufacturing pulp. Course 65 is a prerequisite. *One hour a week.*

67. PAPER PREPARATION AND ANALYSIS.—Laboratory work. Semi-commercial scale production of papers, analysis of paper makers supplies, etc. Course 65 must be taken in conjunction. *†Four hours a week.*

68. PULP MANUFACTURE.—A laboratory course in which pulps of various kinds are made. This must be preceded by Course 65. *†Four hours a week.*

71, 72. PHYSICAL CHEMISTRY.—This course is devoted to the study of some of the more important principles and methods of physical chemistry in its several branches. Lectures and recitations. Open to students who have completed Chemistry 40, Mathematics 13, and Physics 1-3 and 2-4. *Three hours a week.*



74. **PHYSICO-CHEMICAL METHODS.**—The purpose of this course is to illustrate the topics considered in Course 71 and 72, as well as to furnish training in physico-chemical laboratory procedure. Determination of molecular weights; the study of solutions thru conductivity and other methods; rate of reaction and chemical equilibrium; potential and electromotive force; calorimetry; and the use of the more important instruments, such as the refractometer, polariscope, and spectroscope. †*Four hours a week.*

75. **CELLULOSE.**—A course in which cellulose is studied, including laboratory work dealing with the characteristics and derivatives of cellulose. †*Four hours a week.*

77, 78. **INDUSTRIAL CHEMISTRY.**—General processes of technical chemistry and selected topics, including the principal manufactured products. Lectures and recitations. Courses 51, 52, and 62 are prerequisites. *Three hours a week.*

79. **ADVANCED TECHNICAL ANALYSIS.**—This course includes the analysis of water from both the technical and sanitary viewpoint; fuel and gas analysis; iron and steel, and other industrial products of general importance. Prerequisite, Course 62. Class room, *one hour a week*; laboratory, †*eight hours a week.*

80. **INSPECTION TRIP.**—Local trips to manufacturing plants of a chemical nature are taken; also about a week's trip in New England during the spring, when about twenty industrial and chemical plants are visited. A report of the trip is required. The expenses of these trips for the past year were from \$35 to \$45.

82. **PAPER COLORING.**—Course 75 is a prerequisite. †*Four hours a week.*

86. **BLEACHING OF PULP.**—A laboratory course dealing with the methods of bleaching various kinds of pulp including use of bleaching powder, of chlorine directly, electrolytic bleach production, and efficiency testing. Course 66 is a prerequisite. †*Four hours a week.*

87. **PAPER TESTING AND ANALYSIS.**—A laboratory course involving physical, microscopical, and chemical work. The work taken up is that ordinarily assigned to the chemist in a paper mill. It includes the testing of papers for bursting strength, tensile strength, stretch, folding strength, etc. Methods for estimating the quality and quantity of different fibres are also studied in the laboratory. Course 62 is prerequisite. †*Four hours a week.*

88. **PAPER TESTING AND ANALYSIS.**—Duplicate of Ch 87.

89. **ORGANIC ANALYSIS.**—Qualitative and quantitative determination in organic compounds of carbon, hydrogen, oxygen, nitrogen, sulphur, phosphorus, the halogens, etc. Courses 51, 52, and 61 are prerequisites. †*Four hours a week.*

91. ADVANCED ORGANIC CHEMISTRY.—A course involving the general and also special topics of organic chemistry. Prerequisite, Courses 51, 52. *Three hours a week.*

92. DYEING.—The practical application of dyes, with and without mordants, to the important textile fibres and filaments. Course 75 is a prerequisite. †*Four hours a week.*

93. CHEMICAL LITERATURE.—Reviews and discussions of leading articles appearing in current American, English, French, and German chemical literature. For senior chemical engineering and chemistry students. *One hour a week.*

94. ORGANIC PREPARATIONS.—The preparation of a large number of typical organic compounds. Courses 51, 52, and 91 are prerequisites. †*Four hours a week.*

95. ELECTROCHEMISTRY.—A lecture and textbook course on the theory and general principles of the subject and its application in industrial work, including electrolytic bleach. Courses 71 and 72 are prerequisites. *Three hours a week.*

96. ASSAYING.—The fire assay of important typical ores, especially ores containing gold and silver. †*Four hours a week.* (Given only if there is sufficient demand).

97, 98. THESIS SEMINAR AND PROBLEMS.—Chemical, Chemical Engineering or Pulp and Paper problems. \**Six hours a week or equivalent.*

100. THESIS.—The thesis will embody the result of the study of a special problem in the laboratory. It will partake of the nature of original investigation, and will ordinarily require not less than †four hours a week. This requirement as thruout the College of Technology is in addition to the 150 hours required for graduation. In place of a thesis a student may elect to take an additional two hours after obtaining permission from his major instructor.

101. SYNTHETIC ORGANIC CHEMISTRY.—*Time and credit hours arranged.*

111. METHODS OF TEACHING CHEMISTRY.—*One hour a week.* Time arranged.

Equipment obtained and receipted for by a student and not returned at the end of a course in good condition, as well as a few non-returnable supplies and a few special chemicals, will be charged to the student at cost. The supply room will be open during all laboratory periods for the obtaining of special equipment on charge slips and for replacing broken articles or obtaining permanent equipment and special chemicals and supplies on charge slips or breakage cards. Breakage cards may be obtained only at the Treasurer's office. All students are required to have one and

the unused balance is redeemable at the Treasurer's office, after obtaining clearance at the storeroom.

For courses in Biological and Agricultural Chemistry, see the description of courses given by the Department of Biological and Agricultural Chemistry.

For chemistry courses in the summer term, see the Summer Term Bulletin and special folder.

## CIVIL ENGINEERING

PROFESSOR BOARDMAN; PROFESSOR SPRAGUE; ASSOCIATE PROFESSOR LYON;  
ASSOCIATE PROFESSOR LEAVITT; MR. EVANS; MR. FELKER

1. PLANE SURVEYING. FIELD WORK.—This course consists of practice in the use of the chain, tape, compass, transit, level, and other surveying equipment. Required of all students in the Departments of Civil Engineering and Forestry. *\*Twelve hours a week.* First nine weeks.

2. PLOTTING.—This course consists chiefly of map drawing from field notes, by the different methods in common use. Courses 1 and 7 are prerequisite. *\*Eight hours a week.* First twelve weeks.

3. PLANE SURVEYING.—A course similar to Course 7. Given to students in the Departments of Mechanical and Electrical Engineering. *One hour a week.* Last twelve weeks.

4. FIELD WORK IN SURVEYING.—A continuation of Course 1. This course consists of original surveys, problem work, note keeping, etc. Course 1 is prerequisite. *\*Nine hours a week.* Last six weeks.

5. FIELD WORK IN SURVEYING.—The use of the chain, compass, transit, and level. Required of all students in the Departments of Mechanical Engineering and Electrical Engineering. Given in connection with Course 3 but not with Course 7. *\*Three hours a week.* First six weeks.

7. PLANE SURVEYING.—Recitations and lectures covering the general theory of plane surveying, and other surveying operations; description of surveying equipment, and adjustment of instruments; use of chain, tape, compass, transit, and level. Required of all students in the Departments of Civil Engineering and Forestry. *\*Three hours a week.* Last nine weeks.

9. RAILROAD CURVES.—A course of recitations and lectures investigating the geometry of railroad curves, switches, and turnouts. Course 7 or 3 is prerequisite. *Two hours a week.*

20. MASONRY CONSTRUCTION.—A course including the discussion of stone and brick masonry; cement and cement testing; mortar; plain and reinforced concrete; foundations; pneumatic caissons; culverts, bridge piers, and abutments. *Two hours a week.*

21. RAILROAD FIELD WORK.—The survey for a railroad about two miles in length. The preliminary and location surveys are made, including running in the curves, obtaining the topography, establishing the grade, and setting the slope stakes. Courses 4, 6, or Courses 4, 27 are prerequisites. *\*Six hours a week. First nine weeks.*

22. ADVANCED SURVEYING.—This course consists of lectures, readings, and recitations on the theory and practice of base line measurement, triangulation, precise leveling, topographical surveying, the use of the plane table, the theory and application of least squares and map projection. It is a preparation for Course 24. Course 21 is prerequisite. *One hour a week.*

23. RAILROAD OFFICE WORK.—The office work of mapping the notes taken in Course 21, including the calculation of the earth work. Courses 2, 21 are prerequisites. *\*Six hours a week. Last nine weeks.*

24. JUNIOR FIELD WORK.—This course consists of the practical application in the field and in the office of the principles given in Course 22. Course 22 is prerequisite. Time arranged. Credit, *one hour.*

25. RAILROAD CONSTRUCTION.—Recitations and lectures on the field and office practice of staking out and computing amount of excavation and fill; borrow-pits; haul; methods and materials of railroad construction; subgrade; roadbed; track and track work. Course 6 or 27 is prerequisite. *Two hours a week.*

26. HYDRAULICS.—Fundamental data; hydrostatics; theoretical hydraulics; instruments and observations; theoretical and actual flow through orifices, weirs, tubes, pipes, and conduits; dynamic pressure of water. *Three hours a week.*

27. SIMPLE CURVES AND EARTHWORK.—A lecture course on the theory and practice of simple railroad curves, and on the field and office practice of staking out and computing earthwork. Given to students outside of the Department of Civil Engineering who desire to take Courses 21 and 23. Courses 1, 4, or Courses 3, 5 are prerequisites. *One hour a week.*

28. STRUCTURES.—The theory of the simple beam; loads and reactions; vertical shear; bending moment; influence lines. The object of this course is to give the student a drill in finding vertical shear and bending moment under different systems of loadings, and to apply the same to the design of simple beams, also to familiarize him with the use of steel hand books, various tables, and the slide rule. Class room, *two hours a week*; drawing room, *†two hours a week.*

29. SANITARY ENGINEERING.—The general principles of sewer design and construction, and sewage disposal; a study of city sanitation. Course 1 or 3 is prerequisite. *Two hours a week.*

30. HIGHWAY CONSTRUCTION.—The construction and maintenance of city pavements and country roads under various conditions of traffic, climate, soil, etc. Course 1 or 3 is prerequisite. *Two hours a week.*

33. FOUNDATIONS.—A short course in the fundamentals of design for different classes of foundations; bearing power of soils, manufacture of cement, mixing and testing of cement and concrete, cofferdams, pneumatic caissons. Required of students in Mechanical and Electrical Engineering. *One hour a week.*

35. HYDRAULICS.—A short course which includes the main principles given in Course 26. Given to students in the Departments of Mechanical and Electrical Engineering. *Two hours a week.*

51. HYDRAULIC FIELD WORK.—The measurement of the flow of rivers is illustrated by the use of the current meter. The data thus obtained is used to plot the rating curves, etc. The measurements taken are reported to the U. S. G. Survey. The expenses of this course are paid by the students. Required of students taking Option 1. Course 26 is prerequisite. *†Four hours a week.*

52. HYDRAULIC ENGINEERING.—A continuation of Course 55. The development and utilization of water power; the modern turbine; inspection of hydro-electric plants. *Two hours a week.*

53. HYDRAULIC FIELD WORK.—A short course similar to Course 51. Required for students taking Options 2 and 3. Course 26 is prerequisite. *†Two hours a week.*

54. CEMENT LABORATORY.—This course consists of making the regulation commercial tests upon different samples of cement. Required of students in Civil Engineering. Course 20 is prerequisite. *The time varies.*

55. HYDROLOGY.—A study of stream-flow as applied to water power development; rainfall; evaporation; run-off; methods of obtaining data with a study of their use. Required of students electing Option 1. Course 26 is prerequisite. *Two hours a week.*

57. STRUCTURES.—A continuation of Course 28. The theory of stresses in framed structures, including the plate girder, bridge trusses, and roof trusses; reinforced concrete; the principles of designing. The object of this course is to train the student in the application of the principles of mechanics to the design of structures. *Three hours a week.*

58. STRUCTURES.—A continuation of Course 57. This course includes a study of the higher types of structures. *Three hours a week.*

59. DESIGNING.—This course takes up the design for some of the common types of steel structures, and the preparation of the shop drawings. Course 28 is prerequisite. *†Nine hours a week.*

60. GRAPHIC STATICS.—Class and drawing room work in the graphical determination of shear and bending moment, and the analysis of



bridge and roof trusses by graphical methods. Course 57 is prerequisite. *Two hours a week.*

61. ROAD MATERIALS LABORATORY.—Physical and chemical tests of sand, gravel, stone, bituminous compounds, corrugated steel culverts, asphalt, tar, and other road materials. Course 30 and Chemistry 1 or 3, 2 or 4, 5, 6 are prerequisites. †*Two hours a week.*

62. DESIGNING.—A continuation of Course 59. Course 57 is prerequisite. †*Six hours a week.*

63. HIGHWAY AND RAILROAD ENGINEERING.—One half of the semester is devoted to the economics of railroad location and operation; the railroad corporation, its rights and limitations; traffic; operating expenses; the locomotive and its work; distance; curves; grades; etc. The other half semester is devoted to highway management and economics; state highway commissions, their functions and divisions; highway organization, management, and legislation; economic factors of highway location and design. Required of students electing Option 2 and 3. Courses 25 and 30 are prerequisite. *Three hours a week.*

64. RAILROAD ENGINEERING.—A course in railroad design. A map reconnaissance for a railroad about twelve to fifteen miles in length is made, applying the theories of Course 63. The final line is located, profile made, grades established, and drainage areas and culverts calculated. The rails, switch points, frogs, and ties for a turnout are designed. Required of students electing Option 2. Courses 23, 63 are prerequisites. †*Four hours a week.*

66. RAILROAD ENGINEERING.—A course of lectures and recitations studying various railroad problems; structures; grade crossings and elimination; yards and terminals; signals and interlocking; maintenance and betterment work as discussed in engineering periodicals. Required of students electing Option 2. Course 63 is prerequisite. *Two hours a week.*

67. GRAPHIC STATICS.—Class and drawing-room work in the graphical determination of shear and bending moment, and the analysis of roof trusses by graphical methods. Required of students in Mechanical Engineering. *Two hours a week.*

68. HIGHWAY DESIGN.—Drawing room study of highway location and relocation including plans of proposed improvement and construction of about five miles of highway with detailed estimates and specifications for the same. Required of students electing Option 3. Course 63 is prerequisite.

72. HIGHWAY ENGINEERING.—An advanced course of lectures and recitations on various highway problems; general survey of higher types of pavements; city planning; specifications; cost keeping; maintenance



and repair work as discussed in Engineering periodicals. Required of students electing Option 3. Course 63 is prerequisite. *Two hours a week.*

97 and 98. THESIS WORK.—The study of and report upon some original investigation, or design. *Time to be arranged.* See regulations regarding degrees.

## ELECTRICAL ENGINEERING

PROFESSOR BARROWS; ASSOCIATE PROFESSOR HILL; ASSISTANT PROFESSOR CREAMER; MR. ROBERTS; MR. DOWNING

1, 2. ELEMENTS OF ELECTRICAL ENGINEERING.—Fundamental laws and principles of electricity; series and parallel circuits; the magnetic circuit; the dielectric circuit; conduction thru electrolytes and gases; thermionics; electrical instruments; electrical measurements. Recitations and problems. *Two hours a week* first semester; *three hours a week* second semester.

5, 6. FUNDAMENTALS OF ELECTRICAL MACHINERY.—Application of the laws studied in Courses 1 and 2 to fundamental problems common to all types of electrical machinery. General methods of procedure in electrical machine design. Theory, construction, and application of direct-current generators and motors, and an introduction to alternating-current circuits and machines. Lectures, recitations, and problems. *Three hours a week* first semester; *four hours a week* second semester.

7, 8. ELECTRICAL LABORATORY.—Electrical measurements, operation, and testing of direct current generators and motors. Application of the work of Courses 1, 2, 5, 6. *One hour a week* class room; *three hours a week* laboratory.

20. IGNITION AND STARTING SYSTEMS.—The principles of ignition and starting systems as used in the late types of automobiles. Lectures and recitations. *Two hours a week.*

22. ELEMENTARY TELEPHONY.—Principles of telephone apparatus; the subscribers' set; common battery and local battery circuits; central office equipment and circuits. The work is descriptive and non-mathematical. Lectures and recitations. *Two hours a week.*

30, 35. DIRECT CURRENT MACHINERY.—Electrical principles and applications; the production, distribution, and utilization of power from the standpoint of the mechanical and chemical engineer. Recitations and problems. *Two hours a week.*

31, 36. ALTERNATING CURRENTS.—Alternating current measurements and calculations; operation of generators and motors. Lectures, recitations, and problems. *Two hours a week.*

33, 38. ELECTRICAL LABORATORY.—These courses are based on Courses 30, 31, 35, and 36. Operation of direct current and alternating current generators and motors; electrical power measurements. *Three hours a week.*

42. ELECTRICAL POWER.—Electrical measurements; the generation, transmission, and utilization of electrical power. Lectures, recitations, and problems. *Two hours a week.*

51. ALTERNATING CURRENTS.—Effect of alternating currents in various electric circuits; voltage; current and voltage relations in inductive and capacity circuits; the theory, construction, and operation of apparatus and machinery. Lectures, recitations, and problems. *Four hours a week.*

52. ADVANCED ALTERNATING CURRENTS.—A continuation of Course 51. Polyphase apparatus; generation, transmission, distribution and utilization of polyphase power; problems involving previous courses. High voltage long distance transmission; transmission line phenomena; methods and practice of securing most reliable service. Lectures, recitations, and problems. *Three hours a week.*

54. TECHNICAL REVIEWS.—A study of some special phase of electrical engineering and the presentation of it to the class. *Two hours a week.*

56. ELECTRICAL POWER PLANTS.—Electrical equipment of power plants, methods of control, switching, protection, lighting arresters; arrangement of station and substation machinery, apparatus, and switchboards. Lectures and recitations. *Two hours a week.*

61. ILLUMINATING ENGINEERING.—Different types of lamps; light, photometry, illumination calculations, and problems of interior and exterior illumination. Lectures, recitations, and problems. *Two hours a week.*

64. ELECTRIC RAILWAY ENGINEERING.—Preliminary considerations in electric railway engineering; principles governing selection of equipment and design of systems for urban, interurban, and trunk-line roads; engineering and economic problems involved in steam railway electrification. Lectures, recitations, and problems. *Two hours a week.*

65. ADVANCED TELEPHONE ENGINEERING.—Theory of apparatus; modern laboratory tests; recent developments. Lectures, quizzes, and recitations. *Two hours a week.* Course 22 is prerequisite.

66. TELEPHONE TRANSMISSION.—Application of hyperbolic functions to transmission line problems; transmission of speech over cable and open wire circuits; loaded lines; design of artificial lines. Recitation, and problems. *Two hours a week.*

67. TELEPHONE LABORATORY.—Efficiency of telephone apparatus; use of the standard cable; local and common battery sets; phantom circuits;

filters; speech transmission tests. *Three hours a week.* Course 22 is prerequisite.

69. RADIO ENGINEERING.—Fundamentals of damped and continuous wave telegraphy and of telephony. The transmitter; the receiver; antenna systems; tuning; the vacuum tube. Lectures and recitations. *Two hours a week.* Courses 5 and 6 are prerequisites.

75, 76. ELECTRICAL LABORATORY.—Alternating-current instruments and measurements; experimental work on single-phase circuits and poly-phase systems; operation and testing of alternating-current generators, motors, transformers and converters. *One hour a week class-room; three hours a week laboratory.* Courses 5, 6, 7, and 8 are prerequisites.

77. ENGINEERING ECONOMICS.—A study of the economic features of engineering projects including first cost, salvage values, operating cost, estimating and economic selection. *One hour a week.*

78. INSPECTION TRIP.—About a week's trip visiting some of the electrical and industrial plants of New England.

80. THESIS WORK.—The study of and report upon some original investigation or design. Time to be arranged. See regulations regarding degrees.

## ENGINEERING DRAWING

PROFESSOR GROVER; MR. BROOKS; MR. JOHNSON

1. DRAWING.—Instruction and practice in technical freehand drawing and lettering, in the care of drawing instruments and their use in elementary problems involving right lines, circles, irregular curves, and orthographic projections. *\*Six hours a week.*

2. DRAWING.—A continued study of the methods of orthographic projection, isometric projection, and oblique projection, accompanied by instruction and practice in the making of working drawings and tracings. *\*Six hours a week.*

3. DRAWING.—The elementary principles and problems of descriptive geometry, including intersections and developments. *\*Six hours a week.*

4. DRAWING.—A continued study of the making of working drawings of simple machines, together with instruction and practice in blue-printing. *\*Six hours a week.*

9, 10. DRAWING.—A course designed especially for students in Agriculture and for non-engineers. It combines the fundamental principles of Course 1 and Course 2. *\*Three hours a week.*

## MECHANICAL ENGINEERING

PROFESSOR SWEETSER; ASSOCIATE PROFESSOR KENT; ASSISTANT PROFESSOR  
EMERSON; MR. DAVEE; MR. WATSON; MR. PERKINS;  
MR. MERRIAM; MR. ABBOTT

1. **FOUNDRY WORK.**—Foundry instruction is given in bench and floor molding, mixing of materials, core making, operation of cupolas, etc. *\*Three hours a week.*

2. **WOODWORKING.**—Graded exercises in woodworking designed to make the student familiar with tools used in modern woodworking practice, and to give him experience in working from dimensioned drawings. Pattern work, consisting of the making of complete patterns and core boxes from drawings. *\*Six hours a week.*

3. **FORGE WORK.**—Forging; welding; tool dressing. A set of lathe tools for use in machine shop is made by each student. *\*Three hours a week.*

4. **WOODWORKING.**—A shorter course than Course 1, arranged for students in Chemical Engineering. *\*Four hours a week.*

5, 6. **SHOP WORK.**—A special course for Agricultural students, covering metal and woodworking with hand tools mostly, harness repairing, rope splicing, belt lacing, and tool sharpening.

7, 8. **MACHINE WORK.**—Lathe work; exercises on planer, shaper, and milling machines; making cut gears, machinists' taps, etc. Course 3 is a prerequisite. *\*Six hours a week.*

9, 10. **MACHINE WORK.**—A shorter course than 7, 8, for electrical engineers. *\*Four hours a week.*

23. **ELEMENTS OF MECHANICAL ENGINEERING.**—A course of lectures, supplemented by recitations, designed to familiarize the student with the mechanical apparatus of manufacturing and power plants. *One hour a week.*

25. **KINEMATICS.**—A study of motion, velocity, and acceleration of machine parts, supplemented by drawings of cams, gear teeth, and graphical studies of kinematical problems. Class room, *three hours a week*; drawing room, *\*three hours a week.*

27. **KINEMATICS.**—A shorter course than 25, arranged for Electrical Engineers. *Three hours a week.*

28. **KINEMATICS.**—A shorter course than 27 given to Chemical Engineers. *Two hours a week.*

30. **ENGINEERING CALCULATIONS.**—A course for sophomores only, designed to familiarize them with the use of the slide rule and mathematical

cal tables. Numerous problems are introduced involving the knowledge of elementary formulae and constants used in engineering practice.

31. MATERIALS OF ENGINEERING.—Properties of the metals; timber, rope; protective coatings and preservatives. *Two hours a week.*

66. MACHINE DESIGN.—A study of the designing of machines; proportioning of parts for strength, rigidity, etc. Mechanics 51 is prerequisite. *Three hours a week.*

67. MACHINE DESIGN.—A continuation of Course 66, including the execution of the design of some typical machines. Courses 25 and 66 are prerequisites. *\*Six hours a week.*

68. VALVE GEARS.—A study of the principal steam engine valve motions; construction and use of valve diagrams; solution of practical problems in the drawing room. Class work, *two hours a week.* Drawing room, *\*three hours a week.*

69. MECHANICAL LABORATORY.—Elementary experimental work such as calibration of instruments, use of steam and gas engine indicators, mechanical efficiency tests, etc. †*Two hours a week.*

70. MECHANICAL LABORATORY.—Thermal efficiency and economy tests of steam engines, steam turbines and gasoline engines; valve setting, steam calorimetry, etc. †*Three hours a week.*

71. MECHANICAL LABORATORY.—Tests of materials, heating value of liquid fuels, heat balance tests of steam and gasoline engines. †*Three hours a week.*

72. MECHANICAL LABORATORY.—Tests of condensers, boilers, air compressors, fans, hydraulic testing. †*Three hours a week.*

74. MECHANICAL LABORATORY.—A course arranged for students in Civil Engineering. Testing of strength of materials; measurement of flow of water over weirs, thru orifices and nozzles; calibration of venturi meters. †*Two hours a week.*

75. MECHANICAL LABORATORY.—A course arranged for students in Chemical Engineering. Calibration of instruments; tests of engines; measurement of flow of water; tests of lubricants. Course 83 is prerequisite. †*Three hours a week.*

77, 78. MECHANICAL LABORATORY.—A course arranged for students in Electrical Engineering. Calibration of instruments; testing of strength of materials; testing of steam engines, gas engines, hydraulic testing. Course 84 is prerequisite. †*Three hours a week.*

79. HEAT ENGINEERING.—Laws of thermodynamics; laws of gases, saturated and superheated vapors; Carnot's, Rankine's, and actual steam engine cycles; use of steam tables; steam calorimetry; with illustrative practical problems. Mathematics 8 and Physics 1 and 2 are prerequisites. *Three hours a week.*



80. HEAT ENGINEERING.—Simple and compound steam engines; flow of steam; air compressors; flow of air; refrigeration. Course 79 is a prerequisite. *Three hours a week.*

81. HEAT ENGINEERING.—A continuation of Courses 79 and 80 dealing with steam turbines and gas engines; considerations affecting the design and efficiency of operation of heat motors. *Three hours a week.*

82. POWER PLANTS.—Fuels and combustion; types, operations, and arrangement of power plant equipment; design, costs, operating expenses, and economics of steam and gas power plants. Course 81 is a prerequisite. *Two hours a week.*

83. HEAT ENGINEERING.—A short course for chemical engineers covering the laws of thermodynamics and their application to heat motors, air compressors, refrigerating machinery and power plant equipment. *Three hours a week.*

84. HEAT ENGINEERING.—A course similar to Course 79, given to Electrical Engineers. *Three hours a week.*

85. HEAT ENGINEERING.—Simple and compound steam engines; steam turbines; gas engines; gas producers; fuels and combustion; steam and gas plant power equipment and operation. For students in Electrical Engineering. Course 84 is prerequisite. *Three hours a week.*

88. ENGINE DESIGN.—A study of problems affecting the design of a steam or gas engine with regard to their bearing on general machine design. An engine is partially designed in the drawing room. Courses 67 and 81 are prerequisite. *\*Six hours a week.*

92. HEATING AND VENTILATION.—Course 80 is a prerequisite. *Three hours a week* for nine weeks.

94. HYDRAULIC MACHINERY.—Hydraulic turbine; water wheels; various features of hydraulic power plant development. *Three hours a week* for nine weeks.

96. SEMINAR.—Preparation, presentation, and discussion of papers on leading engineering topics. *One hour a week.*

98. FACTORY ORGANIZATION AND MANAGEMENT.—Lectures and assigned reading bearing upon various types of organization for industrial enterprises; planning and equipping of factory plants; systems of management; factory design and construction. *Two hours a week.*

INSPECTION TRIP.—A visiting trip of one week's duration to various manufacturing and power plants. This trip is open only to seniors who are eligible for graduation. The expense to each student is in the neighborhood of forty-five dollars. A complete schedule of the trip is prearranged and a member of the department staff is in charge of the party.

THESIS.—The results of some original investigation or design presented in proper form. The subject should be selected early in the fall semester of the senior year. See regulations regarding degrees.



## MECHANICS

PROFESSOR WESTON

2. MECHANICS.—An elementary course in the fundamental principles of statics, kinematics and kinetics, with applications to practical problems involving frictional resistance, the transmission of power by belts, and the stresses and strains in beams, trusses, shafts, and columns. For students in Chemical Engineering. *Three hours a week.*

51, 52. MECHANICS.—The fundamental principles of statics, kinematics, and kinetics, with applications to practical problems; exercises in finding center of gravity and moment of inertia; the study of stresses and strains in bodies subject to tension, compression, and shearing; the common theory of beams, including shearing force, bending moment, and elastic curves; torsional stresses and theories of stress in long columns. *Five hours a week.*

101. ADVANCED MECHANICS.—General principles of kinematics, statics, and kinetics; the mathematical theory of elasticity; the theory of the potential function with applications to problems in gravitation, hydro-mechanics, etc. *Three hours a week.*

## Required Courses

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### MILITARY SCIENCE AND TACTICS

MAJOR JAMES; CAPTAIN ADAMS; CAPTAIN NICHOLS; MR. KIDNEY;  
SERGEANT ASHLEY; SERGEANT LYONS

Military instruction is required by law. The department is in charge of an officer of the Regular Army, detailed by the President of the United States, as Professor of Military Science and Tactics. The course maintained is that of an Infantry Unit of the Reserve Officers' Training Corps, the purpose of which is to train officers for infantry. Graduates fulfilling the requirements of law are eligible for commission in the Infantry Officers' Reserve Corps of the Army. The students are organized into an infantry regiment, including band, officered by cadets selected for character, soldierly bearing, and military efficiency. Instruction is carried on under rules and regulations prescribed by the Secretary of War in accordance with law.

Uniforms, arms, and equipment of the latest model of the U. S. Army are furnished by the Government.

The uniform prescribed is as follows:

For cadet commissioned officers, the olive-drab service uniform prescribed for infantry officers of the United States Army, except that "R. O. T. C." and "Maine" insignia are used; for other than commissioned officers, the olive-drab service uniform prescribed for enlisted men of the United State Army, except that "R. O. T. C." and "Maine" insignia are used.

Cadets are required to wear the uniform when on military duty.

In the following schedule of courses, numbers 1 to 4, inclusive, are required of all physically fit male freshmen and sophomores, except students in the School Course in Agriculture. Courses 5 and 6 are elective for juniors; and Courses 7 and 8 are elective for seniors. The required courses cover two years' instruction as laid down in War Department regulations. The elective courses also cover two years, and once entered upon become a prerequisite for graduation. Having completed Courses 1 to 4, inclusive, students electing to continue their military training who comply with the requirements of law and regulations are entitled to money commutation of subsistence at a rate fixed by the Secretary of War.

The courses are so arranged that the standard required will be that for a platoon leader in an infantry company.

The program of training prescribes graded courses, covering a period of four years, as follows:

## BASIC COURSE

Freshman year, Courses 1 and 2; sophomore year, Courses 3 and 4.

## ADVANCED COURSE

Junior year, Courses 5 and 6; senior year, Courses 7 and 8.

## BASIC COURSE—THREE HOURS A WEEK

## MILITARY TRAINING—

## (a) THEORETICAL INSTRUCTION:

*Infantry Drill Regulations:* Principles and methods of instruction in close and extended order, to include the schools of the soldier and squad.

*Rifle marksmanship:* Lectures and talks explanatory of the general scheme and principles of the subject.

*Military courtesy:* (1) Lectures on fundamental principles of military discipline.

(2) Relation of courtesy to discipline and efficiency.

(3) The Military Courtesies of the Army of the United States.

(4) Demonstrations of correct and incorrect manner of rendering courtesies.

## (b) PRACTICAL INSTRUCTION:

*Infantry Drill:* (1) Close and extended order drills.

(2) Participation in military ceremonies.

*Rifle marksmanship:* (1) Various steps in rifle marksmanship.

(2) Nomenclature and care of the rifle.

(3) Effect of weather conditions, etc.

(4) Gallery practice.

(5) Methods of coaching.

(6) General rules and definitions.

*Physical Training:* (1) Recruit instruction in the setting-up exercises.

(2) Talks on the need for and object of physical training.

(3) Mass games and athletics.

## 2. MILITARY TRAINING—

## (a) THEORETICAL INSTRUCTION:

*Infantry Drill Regulations:* Principles and methods of instruction, to include the schools of the platoon and company.

*Rifle marksmanship:* Continuation of Course 1.

*Scouting and Patrolling:* Principles governing the composition, formation, and operations of reconnoitering patrols by day and at night. Differences in methods of operating in open warfare and warfare of position.

## (b) PRACTICAL INSTRUCTION:

*Infantry Drill:* Continuation of Course 1 (b) (1) and (2).

*Rifle marksmanship:* Continuation of Course 1 (b) (1) to (6).

*Scouting and Patrolling:* Problems and exercises in scouting and patrolling on sand table and terrain.

*Physical Training:* Continuation of Course 1 (b) (1) to (3).

## 3. MILITARY TRAINING—

## (a) THEORETICAL INSTRUCTION:

*Map Reading and Military Sketching:* The instruction necessary to enable the student to read military maps with facility and to make road, out-post, and position sketches.

*Infantry Weapons:* (1) The bayonet—Lessons on the bayonet as an offensive weapon. The spirit of the bayonet. Team work.

(2) The automatic rifle—Lessons on the history, characteristics, and marksmanship of the weapon and the organization and equipment of auto-riflemen.

(3) Hand and rifle grenades—Lessons on the construction and handling of the weapons, including explosives.

## (b) PRACTICAL INSTRUCTION:

*Map reading and Military Sketching:* Problems in map reading. Visibility of points, areas, etc. Route sketching.

*Infantry Weapons:* (1) The bayonet—Bayonet training to include the assault course.

(2) Automatic Rifle—Mechanics (stripping, assem-

bling, and functioning). Immediate action. Marksmanship to include instruction up to range practice.

(3) Hand and Rifle Grenades—Individual instruction with dummy and improvised grenades.

*Command and Leadership:* Exercise of command appropriate to various grades of non-commissioned officers of an infantry platoon.

#### MILITARY TRAINING—

##### (a) THEORETICAL INSTRUCTION:

*Map Reading and Military Sketching:* Continuation of Course 3 (a).

*Musketry:* Weapons of the infantry squad. The theory of fire. Range estimation, target designation, and fire distribution. Fire discipline. Fire control. Control of movement. Conduct of fire in the attack and duties of leaders to include the section. Conduct of fire in the defense and duties of leaders to include the section. Combat practice (use of landscape targets, etc.).

*Military Hygiene, Sanitation, and First Aid:* Personal hygiene. Foods and their preparation. Hygiene of the kitchen, barracks, and camp. Selection and protection of drinking water. Hygiene of moving troops. The causes of disease. The prevention and control of epidemics. The prevention of mental and nervous diseases. Sanitation of localities, and the selection and drainage of camp sites. Disposal of refuse. First aid to the injured. Resuscitations. So much of the above as is necessary for an intelligent understanding of the fundamental importance of physical, mental, and moral soundness in the soldier. Physical requirements for military service. Comparative statistics of physical fitness of American citizens for military service in the World War.

##### (b) PRACTICAL INSTRUCTION:

*Map Reading and Military Sketching:* Out-post and position sketching. Combined sketching.

*Musketry:* Exercises, demonstrations and tests, using sand table, landscape target, and terrain.

*Military Hygiene, Sanitation, and First Aid:* Sand table demonstrations and problems in camp sanitation. Construction of miniature models of sanitary appliances,

camp sites, expedients, etc. Demonstrations and exercises in First Aid to the injured.

*Command and Leadership:* Continuation of Course 3 (b).

## ADVANCED COURSE—FIVE HOURS A WEEK

### 5. MILITARY ART—

#### (a) THEORETICAL INSTRUCTION:

*Elements of Field Engineering:* Instruction to include the principles and methods of military field engineering in the various types of trenches, obstacles, shelters, machine-gun emplacements, observation posts, etc. Organization of working parties and tasks. Selection of location for works of defense. Concealment and camouflage.

#### (b) PRACTICAL INSTRUCTION:

*Field Engineering:* Solution of Military Engineering problems based on (a), above. Demonstrations on sand table. Construction on sand table of miniature models of types of trenches, obstacles, and other defensive works. Reconnaissance, location, and laying out of works on the ground.

*Command and Leadership:* Exercise of command and leadership appropriate to grades of sergeant and lieutenant.

### 6. MILITARY ART—

#### (a) THEORETICAL INSTRUCTION:

*Accompanying Weapons of the Infantry:* (1) The Machine Gun—Development of the machine gun. The Theory of Fire. Targets and ranges. Direct, indirect, and overhead fire, and night firing.

(2) The 37 mm. Gun (One-pounder)—History of the weapon. Direct, indirect, and overhead fire. Observation and adjustment of fire.

(3) The Light Mortar—History of the weapon. Laying of the mortar. Kinds of fire. Observation and adjustment of fire.

*Military Law and Rules of Land Warfare:* (1) Military Law—Definition. Sources and kinds of military jurisdiction. Classification and composition of courts-mar-



tial. Exercise of military jurisdiction. Persons subject to military law. Articles of War explained. Procedure before trial. Procedure of courts-martial. Evidence. Sentences. Punishment without trial.

(2) Rules of Land Warfare—Lectures on general principles.

(b) PRACTICAL INSTRUCTION:

*Accompanying Weapons:* (1) The Machine Gun—Nomenclature, use, care, and repair of machine guns and accessories. Mechanics (stripping, assembling, and functioning). Immediate action. Exercises and demonstrations in direct and indirect fire. Use of instruments. Determination of ranges. Recognition and designation of service targets.

(2) The 37 mm. Gun (One-pounder)—Mechanics (stripping, assembling, and functioning). Construction, care, and operation of the gun. Types of ammunition. School of the one-pounder section. Exercises and demonstrations in direct and indirect fire.

(3) The Light Mortar—Construction, care, and operation of the gun. Mechanics (stripping, assembling, and functioning of the gun. Assembling and functioning of bombs. Light mortar emplacements. School of the Mortar Section.

*Military Law:* Moot-court exercises.

*Command and Leadership:* Continuation of 5 (b).

MILITARY ART—

(a) THEORETICAL INSTRUCTION:

*Tactics:* (1) General view of the organization and conduct of the battalion and higher units.

(2) Principles governing the organization, armament, equipment, and conduct of the rifle, machine gun, howitzer, and headquarters companies, in offensive and defensive combat.

(3) Tactical principles governing the conduct of the platoon and smaller units in offensive and defensive combat. Details of organization, equipment, and tactical employment of the rifle company, machine-gun company, and howitzer company platoons. Combined action.

## (b) PRACTICAL INSTRUCTION:

*Tactics:* Demonstrations, exercises, and problems on sand table, map, and terrain in subjects covered in (a) (1) to (3), above.

*Command and Leadership:* Exercise of command and leadership appropriate to grades of sergeant and lieutenant.

## 8. MILITARY ART—

## (a) THEORETICAL INSTRUCTION:

*Tactics:* Principles governing the employment and details of conduct of covering detachments in open and position warfare.

*Military History:* Facts of American Military History, including the World War, as to: (1) The sources of authority for our Military Establishment; (2) the development of the military resources and the military strength of the United States; (3) the state of national preparedness for war at critical periods in the History of the United States; (4) the cost of American wars in relation to national unpreparedness.

Lessons from American Military History, as to: (1) The traditional military policy of the United States; (2) the need for national organization for the military defense of the nation.

*Administration:* Lectures on the practical administration of a company, including the interior economy and the management of the soldier.

## (b) PRACTICAL INSTRUCTION:

*Tactics:* Demonstrations, exercises, and problems on sand table, map, and terrain in subject as outlined in 8 (a).

*Administration:* Practical work in the preparation of papers pertaining to the administration of a company. So much as a lieutenant should know concerning military correspondence, preparation and application of War Department forms, use, and disposition of orders, bulletins, and circulars.

*Command and Leadership:* Continuation of Course 7 (b).

In addition to the above courses, MILITARY ART 9 and MILITARY ART 10 have been established and reserved for selected seniors and juniors and ex-service men who, being unable for various reasons to register for the

Advanced Course, desire to continue their military work as instructors. These students are not members of the R. O. T. C. and are not entitled to draw uniforms from the Government. Their work consists entirely in theoretical and practical instruction of students in the Basic Course.

## PHYSICAL EDUCATION AND ATHLETICS

GRADUATE MANAGER BRYANT; ASSOCIATE PROFESSOR FLACK; ASSISTANT PROFESSOR WALLACE; ASSISTANT PROFESSOR MURPHY; MISS HUESMAN; MR. BRICE; MR. CLARK

The organization of this department has been planned to give the student such experience and instruction as will enable him to establish habits of recreation which will serve to promote healthful physical activity while in college and in his life after graduation. Because of the fact that methods and type of work for this purpose may change from time to time, no detailed statement of what is expected from the student is deemed advisable. Especial emphasis will be placed upon athletics and out-of-door recreational exercises rather than routine work in the gymnasium, although the latter will undoubtedly have to be utilized as a method of secondary importance.

In addition to these viewpoints, that of individual instruction in hygiene will be continually kept in mind. It seems probable that before the close of the current year physical training in this new and broader sense will be adopted as a general rule for all undergraduates whether freshmen or upperclassmen. As an additional piece of information the following statement concerning athletics may be valuable.

1. *Athletics for Men.* Student athletics for men are under the supervision of the Athletic Board, composed of members of the faculty, alumni, trustees, and students; and students paying the regular tuition fee are admitted to all contests held on Alumni Field. Teams are maintained in football, cross-country, relay, basketball, track, tennis, and baseball. The management of athletics is in the hands of a graduate manager who carries out the policies of the Athletic Board.

2. *Athletics for Women.* Student athletics for women are at the present time being extended and reorganized. They will, it is hoped, form a large part of the recreation obtainable by all girl students. It is likely that teams in basketball, track, tennis, baseball and field hockey will be supported.

## Maine Agricultural Experiment Station Council

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WARNER JACKSON MORSE, Ph.D.

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WILLIAM GEORGE HUNTON, Portland

*Maine Seed Improvement Association*

LEONARD CLEMENT HOLSTON, Yarmouth

*Maine Livestock Breeders' Association*

JAMES MONROE BARTLETT, M.S.

EDITH MARION PATCH, Ph.D.

JOHN WHITTEMORE GOWEN, Ph.D.

ELMER ROBERT TOBEY, Ch.E.

DONALD FOLSOM, Ph.D.

KARL SAX, Sc.D.

*Members**of the**Station Staff*

## Faculty of Investigation

(THE MAINE AGRICULTURAL EXPERIMENT STATION)

- WARNER JACKSON MORSE, Director and Plant Pathologist.  
B.S., Vermont, 1898; M.S., 1903; Ph.D., Wisconsin, 1912
- ALICE WOODS AVERILL, Laboratory Assistant.
- JAMES MONROE BARTLETT, Chemist.  
B.S., Maine, 1880; M.S., 1883
- MILDRED REBECCA COVELL, Clerk in Biology.
- PERLEY DOWNING, Superintendent of Aroostook Farm.
- DONALD FOLSOM, Associate Plant Pathologist.  
A.B., Nebraska, 1912; A.M., Minnesota, 1914; Ph.D., 1917
- MARJORIE EUNICE GOOCH, Scientific Aid.  
B.S., Maine, 1919; M.S., 1922
- JOHN WHITTEMORE GOWEN, Biologist.  
B.S., Maine, 1914; M.S., 1915; Ph.D., Columbia, 1917
- CHARLES CLYDE INMAN, Clerk.
- VIOLA LOUISE MORRIS, Seed Analyst.
- MARY LEONICE NORTON, Clerk.
- EDITH MARION PATCH, Entomologist.  
B.S., Minnesota, 1901; M.S., Maine, 1910; Ph.D., Cornell, 1911
- KARL SAX, Biologist.  
B.S., Washington State, 1916; M.S., Harvard, 1917; Sc.D., 1922
- WELLINGTON SINCLAIR, Superintendent of Highmoor Farm.
- ELMER ROBERT TOBEY, Associate Chemist.  
B.S., Maine, 1911; M.S., 1917; Ch.E., 1920
- BEATRICE GOODINE WEBSTER, Laboratory Assistant.
- CHARLES HARRY WHITE, Assistant Chemist.  
Ph.C., Maine, 1897
- LA KATHLEEN WHITE, Clerk.

## GOVERNMENT OF THE STATION

By authority of the trustees the affairs of the Station are considered by the Station Council, composed of the President of the University, three members of the Board of Trustees, the Director of the Station, the heads and associates of the various departments of the station, the Dean of the College of Agriculture, the Commissioner of Agriculture, and one member each from the State Pomological Society, the State Grange, the State Dairyman's Association, the Maine Live Stock Breeders' Association, and

the Maine Seed Improvement Association. The recommendations of the Council are referred to the trustees for final action. The Director is the executive officer of the Station and the other members of the staff carry out the lines of research that naturally come under their departments.

## INCOME

The income of the Station is derived from the following sources: Federal and State appropriations, payments for inspection analyses made for the Commissioner of Agriculture and from the sale of farm produce. The Federal income, known as the Hatch and Adams Funds, totals \$30,000 annually. The State appropriations for animal husbandry investigations, investigations upon Aroostook Farm, and upon Highmoor Farm are \$5,000 each. Through appropriations to the University the State provides for the cost of printing Station publications.

## OBJECT

The purpose of the agricultural experiment stations is defined in the Act of Congress establishing them as follows:

"It shall be the object and duty of said experiment stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation: the analysis of soils and water; the chemical composition of manures, natural and artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese, and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective states or territories."

The work that the Station can undertake from the Adams Act fund is more restricted, as the fund can "be applied only to paying the necessary expenses for conducting original researches or experiments bearing directly on the agricultural industry of the United States, having due regard to the varying conditions and needs of the respective states and territories."



## EQUIPMENT

Most of the Station offices and laboratories are in Holmes Hall, described on Page 20. The station is well equipped in laboratories and apparatus, particularly in the lines of biological, chemical, entomological, horticultural, pomological, plant pathological, and poultry investigations. It has extensive collections illustrating the botany and entomology of the State. It has a library of over 5000 volumes comprising agricultural and biological journals and publications of the various experiment stations.

## HIGHMOOR FARM

The State Legislature of 1909 purchased a farm upon which the Maine Agricultural Experiment Station "shall conduct scientific investigations in orcharding, corn, and other farm crops." The farm is situated in the counties of Kennebec and Androscoggin, largely in the town of Monmouth. It is on the Farmington branch of the Maine Central Railroad, two miles from Leeds Junction. A flag station, "Highmoor," is on the farm.

The farm contains 225 acres, about 200 of which are in orchards, fields, and pastures. There are in the neighborhood of 3,000 apple trees upon the place which have been set from 20 to 30 years. Fields that are not in orchards are well adapted to experiments with corn, potatoes, and similar farm crops. The house has two stories with a small wing, and contains about fifteen rooms. It is well arranged for the station offices and for the home of the farm superintendent. The barns are large, affording storage for hay and grain.

## AROOSTOOK FARM

By action of the Legislatures of 1913 and 1915 a farm was purchased in Aroostook County for scientific investigations in agriculture to be under the general supervision, management and control" of the Maine Agricultural Experiment Station. The farm is in the town of Presque Isle, about 10 miles south of the village, on the main road to Houlton. The Bangor and Aroostook railroad crosses the farm. A flag station, "Aroostook Farm," makes it easily accessible by rail.

The farm contains about 275 acres, about half of which is cleared. The eight room house provides an office, and a home for the farm superintendent. The large barn affords storage for hay and grain and has a large potato storage house in the basement.

## INVESTIGATIONS

The Station continues to restrict its work to a few important lines, believing that it is better for the agriculture of the state to study thoroughly a few problems than to spread over the whole field of agricultural science. It has continued to improve its facilities and segregate its work in such a way as to make it an effective agency for research in agriculture. Prominent among the lines of investigation are studies upon the food of man and animals, the diseases of plant and animals, breeding of plants and animals, investigations in animal husbandry, orchard and field experiments, poultry investigations, and entomological research.

## INSPECTIONS

The Commissioner of Agriculture is the executive of the laws regulating the sale of agricultural seeds, commercial feeding stuffs, commercial fertilizers, dairy products, drugs, foods, fungicides, and insecticides. The law requires the Commissioner to collect samples and have them analyzed at the Station. The law also requires the Director of the Station to make the analyses and publish the results.

## PUBLICATIONS

The Station issues three series of publications: Bulletins, Official Inspections, and Miscellaneous Publications.

The results of the work of investigation are published in part in scientific journals at home and abroad, in U. S. Department of Agriculture publications, and in bulletins of the Station. All of the more important and immediately practical studies are published in the Station Bulletins. The Bulletins for a year form a volume of 300 to 400 pages and together make up the Annual Report. Bulletins are sent to the press of the State, to exchanges, libraries, and scientific workers. Bulletins which contain matter of immediate value to practical agriculture are sent free to residents of Maine whose names are on the permanent mailing list.

The results of the work of inspection are printed in pamphlet form and are termed Official Inspections. Official Inspections are sent to dealers within the State; those that have to do with fertilizers, feeding stuffs and seeds are sent to farmers, and those reporting food and drugs are sent to a list of several thousand women within the State.

The Miscellaneous Publications consist of newspaper bulletins, circulars, and similar fleeting publications. These are sent to different addresses according to the nature of the subject matter.

On request, the name of any resident of Maine will be placed on the permanent mailing list to receive either or both the Bulletins and Official Inspections as they are published.

## Summer Session

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Since 1902, with the exception of the years 1919 and 1920, the University has conducted an annual summer session of six weeks, beginning usually in the last week in June and ending early in August. The registration has steadily increased to three hundred in the 1922 session, and the number and range of courses have increased correspondingly. Instruction is given in nearly all departments of the College of Arts and Sciences, principally by heads of departments and other teachers of professorial rank in that college. Courses are also offered in Physical Education, Public Health, and Pulp and Paper Making.

The Summer Session is primarily for the benefit of teachers and superintendents in Maine and from other states who desire to improve themselves by taking professional courses required by the State Department of Education, or by pursuing subjects which may be helpful to them in connection with their work; and for students in the University or other colleges who desire advanced credit toward graduation. Especial attention is given to teachers' courses in the various subjects offered. Normal school graduates who are admitted to advanced standing in the University as candidates for a bachelor's degree may do a part of their work in the Summer Session. Properly qualified graduates of colleges or universities may complete graduate work in certain departments leading to the degree of Master of Arts by attendance at four summer sessions, or preferably at two summer sessions and during one regular semester.

Under ordinary circumstances the summer session student is expected to carry not more than three courses, each of which in most cases gives two hours of University credit. Students who are planning to attend the Summer Session should send for the Summer Session Bulletin, to be issued about February 1, 1923, and should plan their courses in advance, if possible consulting the instructors concerned. For any additional information address Dean J. S. Stevens, Director of the Summer Session, Orono, Maine.

## Alumni Associations

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### GENERAL ASSOCIATION

President, Allen W. Stephens, 1899, 244 Madison Ave., New York City  
 Vice President, Norman H. Mayo, 1909, Aberthaw Const. Co., 27 School  
 St., Boston, Mass.  
 Clerk, Herman P. Sweetser, 1910, Orono  
 Executive Secretary, Wayland D. Towner, 1914, Alumni Hall, Orono  
 Treasurer, Charles E. Crossland, 1917, Orono

### ALUMNI COUNCIL

#### MEMBERS AT LARGE

	Term expires
George H. Hamlin, 1873, Orono.....	1925
E. E. Palmer, 1899, 84 State St., Boston, Mass.....	1925
L. C. Southard, 1875, 601 Tremont Bldg., Boston, Mass.....	1923
E. W. Morton, 1909, Presque Isle.....	1923
W. H. Jordan, 1875, Orono.....	1924
P. B. Palmer, 1896, Orono.....	1924
J. F. Gould, 1892, 42 W. Broadway, Bangor.....	1924
E. H. Kelley, 1890, Orono.....	1924
C. Parker Crowell, 1898, 60 Elm St., Bangor.....	1924
Mrs. Mildred Prentiss Wright, 1911, 188 Elm St., Bangor....	1924
(Fills unexpired term of Miss Joanna C. Colcord, 1906)	
Paul L. Bean, 1904, 11 Lisbon St., Lewiston.....	1925

#### *College of Law*

James M. Gillin, 1913, 12 Columbia Bldg., Bangor.....	1924
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#### *College of Arts and Sciences*

Harry E. Sutton, 1909, 161 Devonshire St., Boston, Mass.....	1924
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#### *College of Agriculture*

P. W. Monohon, 1914, Care H. J. Frost & Co., 90 Chambers St., New York City.....	1924
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*College of Technology*

E. R. Berry, 1904, General Electric Co., W. Lynn, Mass. . . . 1923

*Alumni Representative to Board of Trustees*

Hosea B. Buck, 1893, 1 Columbia Bldg., Bangor

*Ex-Officio Members*

Allen W. Stephens, 1899, 244 Madison Ave., New York City 1922

President of the General Alumni Association

Norman H. Mayo, 1909, Aberthaw Const. Co., 27 School St.,  
Boston, Mass. Vice President of the General Alumni Ass'n 1922

*Executive Committee*

L. C. Southard (Chairman), Harry Sutton, E. R. Berry, Paul L. Bean, and  
George H. Hamlin

## SPECIAL ASSOCIATIONS

## COLLEGE OF LAW

President, James M. Gillin, L. 1913, 12 Columbia Bldg., Bangor; Secretary,  
Mark A. Barwise, 1913, 9 Columbia Bldg., Bangor

## SHORT COURSE ALUMNI

President, Bertram Tomlinson, 1918sc, Machias; Secretary, H. Styles  
Bridges, 1918sc, Ellsworth

## MAINE TEACHERS

No officers elected for 1921-22

## LOCAL ASSOCIATIONS

Androscoggin Valley—President, Paul L. Bean, 1904, 11 Lisbon St., Lew-  
iston; Secretary, Harold Cooper, 1915, 14 Elm St., Auburn  
roostook County—President, Clayton Steele, 1911, Presque Isle; Secre-  
tary, Lewis H. Kriger, 1916, Fort Fairfield  
oston—President, Norman H. Mayo, 1909, 27 School St., Boston, Mass.;  
Secretary, J. A. McCusker, 1917, 76 Adams St., Braintree, Mass.



- Boston Club University of Maine Women—Secretary, Vera L. Mersereau, 1918, 8 Russell Rd., West Somerville, Mass.
- Central Maine—President, A. S. Page, 1900, 30 Winter St., Waterville; Secretary, C. A. Blackington, L. 1914, 120 Main St., Waterville
- Connecticut Valley—President, Harry Elder, L. 1909, 423 Main St., Springfield, Mass.; Secretary, R. W. Crocker, 1910, 133 Springfield St., Springfield, Mass.
- Dominion—President, Albert Guy Durgin, 1908, 52 The Drive, Sault Ste. Marie, Ontario, Canada; Secretary, Manley W. Davis, 1919, Care Abitibi Power & Paper Co., Iroquois Falls, Ontario
- Eastern New York—President, B. R. Connell, 1907, 417 Becker St., Schenectady, N. Y.
- Golden Gate—President, W. C. Hammatt, 1893, 202 Hearst Bldg., San Francisco, Cal.; Secretary, H. H. Hoxie, 1906, Care Holabird Elec. Co., 582 Market St., San Francisco, Cal.
- Hancock County—President, Guy E. Torrey, 1909, Bar Harbor; Secretary, David Rodick, 1917, Bar Harbor
- Hartford—President, W. C. Holden, 1892, 247 Collins St., Hartford, Conn.; Secretary, W. C. Sisson, 1919, 36 Irving St., Hartford, Conn.
- Kennebec County—President, W. R. Pattangall, 1884, Augusta; Secretary, Arthur W. Abbott, 1914, Augusta
- Knox County—President, Dr. B. E. Flanders, 1908, Rockland; Secretary, Ruth C. Hunter, 1920, Rockland
- New York—President, G. O. Hamlin, 1900, 171 Madison Ave., New York City; Secretary, C. M. Weston, 1908, Rm. 1303, 200 Fifth Ave., New York City
- Oxford County—President, C. R. Atwood, 1914, 582 Prospect Ave., Rumford; Secretary, P. M. McDonald, L. 1913, Congress St., Rumford
- Penobscot Valley—President, J. Harvey McClure, 1905, 45 Sixth St., Bangor; Secretary, Ralph Whittier, 1902, 54 Forest Ave., Bangor
- Philadelphia—President, Ernest L. Watson, 1901, Paoli, Pa.; Secretary, Henry C. Pritham, 1901, 5436 No. 11th St., Philadelphia, Pa.
- Pittsburgh—President, Warren McDonald, 1912, 1123 Penna. Sta., Pittsburgh, Pa.; Secretary, R. O. Shorey, 1913, 1123 Penna. Sta., Pittsburgh, Pa.
- Somerset County—President, LeRoy Folsom, 1895, Norridgewock; Secretary, Gerald C. Marble, 1917, Cor. Madison Ave. & High St., Skowhegan
- Southern California—President, L. A. Boadway, 1891, 268 E. Colorado St., Pasadena, Cal.; Secretary, E. M. Loftus, 1914, 400 Metropolitan Bldg., Los Angeles, Cal.
- Waldo County—President, Charles S. Bickford, 1882, Belfast; Secretary, Will R. Howard, 1882, Belfast
- Washington—President, L. A. Rogers, 1896, Wardman Park Hotel, Washington, D. C.; Secretary, H. W. Bearce, 1906, Care Bureau of Science, Washington, D. C.

- Western—Secretary, H. M. Soper, 1903, 1615 Harris Trust Bldg., Chicago, Ill.
- Western Maine—President, Edward E. Chace, 1913, 208 Middle St., Portland; Secretary, Myron C. Peabody, 1917, Care Sagadahoc Farms, So. Portland
- White Mountain—President, Dr. H. H. Marks, 1893, 214 Prospect St., Berlin, N. H.; Secretary, W. W. Webber, 1916, 151 High St., Berlin, N. H.
- Worcester County—President, C. H. Lekberg, 1907, 110 Foster St., Worcester, Mass.; Secretary, Herman R. Clark, 1914, 1 Merchant St., Worcester, Mass.
- York County—President, F. R. Chesley, L 1911, 402 Main St., Saco; Secretary, Robert Moore, 1916, 292 Alfred St., Biddeford

## CLASS SECRETARIES

- 1872 E. J. Haskell, 98 Bridge St., Westbrook
- 1873 John M. Oak, 13 Third St., Bangor
- 1874 John I. Gurney, 22 Highland St., Dorchester, Mass.
- 1875 A. E. Mitchell, 30 E. 42nd St., New York City
- 1876 E. M. Blanding, 46 Madison St., Bangor
- 1877
- 1878 C. C. Chamberlain, Enderlin, N. D.
- 1879 George P. Merrill, U. S. National Museum, Washington, D. C.
- 1880 A. H. Brown, Old Town Enterprise, Old Town
- 1881 Professor H. W. Brown, 34 Winter St., Waterville
- 1882 W. R. Howard, Belfast
- 1883 Professor L. H. Merrill, 100 Main St., Orono
- 1884 L. W. Cutter, 65 State St., Bangor
- 1885 Dean J. N. Hart, University of Maine, Orono
- 1886 H. S. French, 211 Crafts St., Newtonville, Mass.
- 1887 J. S. Williams, Guilford
- 1888 H. F. Lincoln, Care J. G. White Corp., 43 Exchange Pl., New York City
- 1889 Dr. J. S. Ferguson, 330 W. 28th St., New York City
- 1890 Edward H. Kelley, Alumni Hall, Orono
- 1891 W. M. Bailey, 88 Broad St., Boston, Mass.
- 1892 George F. Rich, 173 Main St., Berlin, N. H.
- 1893 Harry M. Smith, 23 Second St., Bangor
- 1894
- 1895 W. W. Chase, United States Shipping Board, Emergency Fleet Corporation, 115 Broadway, New York City
- 896 Perley B. Palmer, Orono
- 897 W. L. Holyoke, 719 Broad St., Providence, R. I.

- 1898 W. L. Ellis, Nashua Co-operative Iron Foundry Co., Nashua, N. H.  
1899 Professor A. L. Grover, University of Maine, Orono  
1900 W. N. Cargill, Care The Lumsden & Van Stone Co., South Boston,  
Mass.  
1901 M. B. Merrill, 78 Pleasant St., Meriden, Conn.  
1902 H. E. Cole, Harris Pump & Supply Co., Pittsburgh, Pa.  
1903 Paul D. Simpson, City Hall, Augusta  
1904 A. M. Knowles, U. S. R. R. Administration, 50 Church St., New  
York City  
1905 Professor R. R. Drummond, Orono  
1906 Harry Emery, 78 Exchange St., Bangor  
1907 Elmer J. Wilson, General Electric Co., W. Lynn, Mass.  
1908 E. N. Vickery, Pittsfield  
1909 Deane S. Thomas, 193 Middle St., Portland  
1910 Professor Herman P. Sweetser, Orono  
1911 Fred Nason, 59 Benton Ave., Waterville  
1912 A. L. Deering, Orono  
1913  
1914 P. W. Monohon, Care H. J. Frost & Co., 90 Chambers St., New York  
City  
1915 R. H. Fogler, 103 W. 162nd St., New York City  
1916 W. W. Webber, 151 High St., Berlin, N. H.  
1917 F. O. Stephens, 155 Pleasant St., Auburn  
1918 Thelma Kellogg, Orono  
1919 S. W. Collins, Caribou  
1920 E. P. Jones, East Boothbay  
1921 Winthrop L. MacBride, 8 Avon St., Wakefield, Mass.  
1922 Ian M. Rusk, West Townsend, Mass.

## Appointments

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### MEMBERS OF PHI KAPPA PHI

Rhandena Ayer Armstrong, Rockland; Herbert Andrew Brawn, Bath; Lucy Elizabeth Chamberlain, Houlton; Mary Anna Coughlin, Rockland; Lillian Ring Dunn, Orono; Lynwood Scott Hatch, Old Town; Harry Laton Jackson, Bath; Stanley Jordan Johnson, Brewer; Robert William Laughlin, Portland; Earl Cranston McGraw, South Orrington; Ian MacNiven Rusk, West Townsend, Mass.; Perry Rufus Shean, Patten; Ruth Burleigh Shepherd, Dexter; Norman Gardiner Sturtevant, Livermore Falls; Mary Ellen Thorpe, Presque Isle; Dorothy Trefethen, Wilton; Philip Rodney White, Sebago.

### MEMBERS OF TAU BETA PI

1922

Joseph Kenneth Black, Vinalhaven; Herbert Andrew Brawn, Bath; Franklin Kenneth Chapman, Old Town; Donald Howard Daniels, Portland; Paul DeCourcy, Bucksport; Joseph Paul Dufour, Madawaska; Stanton Glover, Rockland; Philip Warren Ham, Foxcroft; Lynwood Scott Hatch, Old Town; Harry Laton Jackson, Bath; Albert Edwin Johnson, New Britain, Conn.; Stanley Jordan Johnson, Brewer; Edward Freeland Kenney, Bangor; Robert William Laughlin, Portland; Frederick Fairbrother Marston, Portland; Parker William Patterson, Winslow; Conan Althado Priest, Ellsworth; Hyman Louis Rammer, Portland; Homer Franklin Ray, St. Albans; Ian MacNiven Rusk, West Townsend, Mass.; Perry Rufus Shean, Patten; Max Silverman, Portland; Andrew Everett Strout, Portland.

1923

Adrian Lowell Ackley, Peaks Island; Donald Ford Alexander, Bangor; Lorenzo Gates Currier, Wentworth, N. H.; Philip Dunning Davis, Saco; Henry Leroy Doten, Northfield; Stanley Gilbert Hall, Dexter; Eric Stiles Hope, Newport; Stuart Miles Johnson, Brownville; Vernon Leslie Johnson, North Berwick; Chase Roger Lappin, Bryant Pond; Sidney Osborne, Orono; Fernald Stanley Stickney, Brownville; John Clifford Winslow, Westbrook.

## MEMBERS OF ALPHA ZETA

1922

Charles Leslie Eastman, Corinna; Jerome Benedict Gantnier, Benedicta; Orlando Atwood Lester, Bridgton; Albert Fremont Scammon, Phillips; Herbert St. John Torsleff, Bangor; Henry Gilman Webster, Farmington; Charles Wesley Wood, Belfast.

1923

Everett Charles Cunningham, Patten; Edward Carroll Fossett, Bristol; Kenneth Edmund Gibbs, Livermore Falls; Ersley Levi Goldsmith, West Gardiner; Melvin Jeffrey Holmes, Ocean Grove, N. J.; Ithel Ezekiel Prescott, Sanford; Wilbur Cranston Sawyer, Westbrook; Charles Joseph Shepherd, Corinna; Clarence Joseph Titcomb, Farmington.

1924

Charles Edwin Noyes, Norway; Bernie Elliott Plummer, Jr., Weld.

## GENERAL HONORS

Rhandena Ayer Armstrong, Rockland; Herbert Andrew Brawn, Bath; Lucy Elizabeth Chamberlain, Houlton; Mary Anna Coughlin, Rockland; Dwight Burgess Demeritt, Sangerville; Lillian Ring Dunn, Orono; Philip Warren Ham, Foxcroft; Lynwood Scott Hatch, Old Town; Harry Laton Jackson, Bath; Stanley Jordan Johnson, Brewer; Alta Frances Jones, Portland; Robert William Laughlin, Portland; Earl Cranston McGraw, South Orrington; Hiram Otis Noyes, Bryant Pond; Conan Althado Priest, Ellsworth; Homer Franklin Ray, St. Albans; Grace Mildred Reed, Bangor; Ian MacNiven Rusk, West Townsend, Mass.; Catharine Clapp Sargent, Sargentville; Perry Rufus Shean, Patten; Ruth Burleigh Shepherd, Dexter; Andrew Everett Strout, Portland; Norman Gardiner Sturtevant, Livermore Falls; Vera June Thompson, Houlton; Herbert St. John Torsleff, Bangor; Dorothy Trefethen, Wilton; Philip Rodney White, Sebago; Mary Ellen Thorpe, Presque Isle; Charles Wesley Wood, Belfast.

## PRIZES AWARDED

Kidder Scholarship, David Gross, Bangor.

New York Alumni Association Scholarship No. 1, Hiram Otis Noyes, Bryant Pond; Howard Edmund Wilson, Belfast.

New York Alumni Association Scholarship No. 2, John Lawrence Seymour, New York City.

- Pittsburgh Alumni Association Scholarship, William Reed Dow,  
Bangor.
- Class of 1873 Prize, Earl Maynard Dunham, Dixfield.
- Western Alumni Association Scholarship, Leo Friedman, Augusta.
- Elizabeth Abbott Balentine Scholarship, Marion Read, Old Town.
- Phi Mu Scholarship, Francia May Place, Dover.
- Joseph Rider Farrington Scholarship, Thelma Josephine Grover, Nor-  
way.
- Stanley Plummer Scholarship, Stanley Gilbert Hall, Dexter.
- Walter Balentine Prize, Bernie Elliott Plummer, Jr., Weld.
- Franklin Danforth Prize, Dorothy Trefethen, Wilton.
- Washington Alumni Association Watch, Herbert Walker Fifield,  
Vinalhaven.
- Penobscot Valley Alumni Association Scholarship, Clyde Irving Swett,  
Bangor.
- Track Club Scholarship, Edward John Berkley, East Sumner.
- Alpha Omicron Pi Alumnae Prize, Catherine Louise Clarke, Pemaquid.
- Class of 1908 Commencement Cup, Class of 1882.
- Freshman Scholarship Cup, Theta Chi.
- Agricultural Club Membership Cup, Senior Class.
- Charles Anthony Rice Cup, Phi Eta Kappa.
- University of Maine Honorary Society Scholarship, James Tweedie  
Blair, Medford, Mass.
- Fraternity Scholarship Cup, Lambda Chi Alpha.



## Commencement

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### THURSDAY, JUNE 1

- 5.00 P. M. Phi Kappa Phi Initiation, Wingate Hall  
6.30 P. M. Phi Kappa Phi Banquet (twenty-fifth Anniversary), Balentine Hall

### FRIDAY, JUNE 2

- 9.00 A. M. Meeting of the Board of Trustees  
9.30 A. M. Meeting of the Alumni Council, Library  
9.30 A. M. Class Day Exercises, University Oval  
3.00 P. M. Baseball, Maine vs. Colby, Championship Game  
5.00 P. M. Sham Battle—Demonstration Platoon, Rear of Alumni Hall  
8.00 P. M. President's Reception, Library  
9.00 P. M. Fraternity Receptions

### SATURDAY, JUNE 3

- 10.00 A. M. Annual Business Meeting of the General Alumni Association, Alumni Hall  
12.30 A. M. Alumni Luncheon, The Commons  
2.00 P. M. Literary Exercises, Alumni Hall  
4.00 P. M. Maine Pageant, Athletic Field  
6.30 P. M. Alumni Banquet, Alumni Hall  
9.00 P. M. Alumni Movies, Chapel  
9.30 P. M. Alumni Hop, Gymnasium

### SUNDAY, JUNE 4

- 10.30 A. M. Baccalaureate Address by Rev. A. H. Robinson, Plainfield, N. J.  
6.30 P. M. Alumnae Tea, Mt. Vernon House

### MONDAY, JUNE 5

- 10.00 A. M. Commencement Exercises, Address by Dr. Kenneth C. M. Sills, President of Bowdoin College  
Conferring of Degrees  
8.00 P. M. Commencement Ball, Gymnasium

## Degrees Conferred

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### College of Agriculture

#### BACHELOR OF SCIENCE

Rhandena Ayer Armstrong (in Home Economics).....	Rockland
Martha Durgin Chase (in Home Economics).....	Sebec Station
Rachel Connor (in Home Economics).....	Bangor
Frances Elizabeth Curran (in Home Economics).....	Bangor
Dwight Burgess Demeritt (in Forestry).....	Sangerville
Robert Wilbur Dow (in Forestry).....	Biddeford
Charles Leslie Eastman (in Agronomy).....	Corinna
Jerome Benedict Gantnier (in Animal Husbandry).....	Benedicta
Gladys Marie Gould (in Home Economics).....	Milo
Wyman Eveleth Hawkes (in Animal Husbandry).....	South Windham
Leroy Sargent Huckins (in Forestry).....	Lubec
Pearl Ernest Johnson (in Agricultural Education).....	New Gloucester
Ardis Elizabeth Lancey (in Home Economics).....	Hartland
Orlando Atwood Lester (in Animal Husbandry).....	Bridgton
Robert Lincoln Littlefield (in Dairy Husbandry).....	Wells Beach
Thomas Arthur Murray (in Animal Husbandry).....	Hampden Highlands
Frances Sarah Nason (in Home Economics).....	Hampden Highlands
Ida Estelle Nason (in Home Economics).....	Hampden Highlands
Minnie Elvera Norell (in Home Economics).....	Caribou
Lauriston Franklin Noyes (in Dairy Husbandry).....	East Wilton
Ethel Frederica Packard (in Home Economics).....	Camden
Genevieve Mae Packard (in Home Economics).....	Carmel
Hope Perkins (in Home Economics).....	North Brooksville
Helen Lucia Pulsifer (in Home Economics).....	Auburn
Donald Winslow Reed (in Animal Husbandry).....	Woodfords
Albert Fremont Scammon (in Animal Husbandry).....	Phillips
David Wass Tabbutt (in Forestry).....	Columbia
Errol Eugene Tarbox (in Forestry).....	Sanford
Gardner Berry Tibbetts (in Animal Husbandry).....	Freedom
Joseph Frederick Tingley (in Animal Husbandry).....	Millinocket
Herbert St. John Torsleff (in Dairy Husbandry).....	Bangor
Orothy Trefethen (in Home Economics).....	Wilton
Arnold Wesley Tyler (in Dairy Husbandry).....	Augusta
Carlton Asa Walker (in Animal Husbandry).....	Bridgton
Byron Edmund Watson (in Forestry).....	Sanford

Henry Gilman Webster (in Dairy Husbandry).....	Farmington
Charles Wesley Wood (in Animal Husbandry).....	Belfast
Charles Lorenzo Woodman (in Forestry).....	Plymouth, N. H.

## College of Arts and Sciences

### BACHELOR OF ARTS

Anne Kathleen Baker (History).....	Orono
Frank Eugene Barton (Biology).....	Rockport, Mass.
Lawrence Price Barton (Economics & Sociology).....	Topsham
Clayton Crowell Bayard (Economics & Sociology).....	Orono
Achsa Mabel Bean (Biology).....	Detroit
Parry Eustis Boyd (Economics & Sociology).....	Bangor
Mary Carolyn Bunker (Biology).....	Bangor
Lester King Cary (Economics & Sociology).....	Fort Fairfield
Lucy Elizabeth Chamberlain (French).....	Houlton
Robert Cohen (Chemistry) (B.S., Maine, 1921).....	Somerset, Mass.
Ida Merrill Collins (Spanish).....	Caribou
Coleman Joseph Costello (Chemistry).....	Portland
Mary Anna Coughlin (English).....	Rockland
Donald Harvey Cross (Mathematics).....	Guilford
Fannie Rebecca Cutler (French).....	Old Town
Leona Louise DeBeck (Spanish).....	Franklin
Helena Mason Derby (History).....	Bangor
Ardis Eleta Dolliff (History).....	Jackson
Helen Lucena Downes (French).....	Winterport
Lillian Ring Dunn (French).....	Orono
Beulah Lillian Duran (Spanish).....	East Corinth
Herbert Walker Fifield (Economics & Sociology).....	Vinalhaven
Ina Evelyn Gillespie (Spanish).....	Meddybemps
Julia Thompson Gilpatrick (Spanish).....	Northeast Harbor
Irving Albert Goldberg (Economics & Sociology).....	Hartford, Conn.
Muriel Frances Goodrich (English).....	Orono
Reynold Warren Graffam (Economics & Sociology).....	Phillips
Stephen Augustus Griffin (Economics & Sociology).....	Peaks Island
Stanley Freeland Hanson (Economics & Sociology).....	Woodford
Helen Louise Hathorne (History).....	Orono
Richard Paul Hegarty (Economics & Sociology).....	Somerville, Mass.
Winslow Kent Herrick (Economics & Sociology).....	Brewster
Pauline Marguerite Hill (Spanish).....	Old Town
Fred Thompson Jordan (Economics & Sociology).....	Farmington
Bernard Augustus Libby (Economics & Sociology).....	Limerick
Earl Cranston McGraw (Mathematics).....	Orrington

Mary Almeda McLean (English).....	Augusta
Alice Eliza Mascn (Latin).....	Mount Desert
Doris Pauline Merrill (English).....	Bluehill
Frank Leander Staples Morse (Spanish).....	Rockland
Paul Edward Murphy (Economics & Sociology).....	Guilford
Thomas Harold Murphy (Economics & Sociology).....	Guilford
John Hayes Needham (Economics & Sociology).....	Old Town
Hiram Otis Noyes (Economics & Sociology).....	Bryant Pond
Gertrude Mary O'Brien (English).....	Medford, Mass.
Oscar Leland Perry (Economics & Sociology).....	Rockland
Seth Henry Pinkham (Economics & Sociology).....	Cape Porpoise
Lawrence DeLeon Porter (History).....	Orono
Marion Berenice Rhoda (Latin).....	Houlton
Ernest Harvey Ring (Economics & Sociology).....	Orono
Lloyd Herbert Robinson (Economics & Sociology).....	Island Falls
Warren Stetson Rock (Economics & Sociology).....	Swampscott, Mass.
Forrest John Ross (Mathematics).....	Columbia Falls
Catherine Clapp Sargent (Mathematics).....	Sargentville
Donald Frank Sawyer (Economics & Sociology).....	Milbridge
Ruth Burleigh Shepherd (Spanish).....	Dexter
Bernice Smith (Economics & Sociology).....	Bangor
Pauline Chambers Smith (English).....	Houlton
Carl Thompson Stevens (Chemistry).....	Buxton
Frances Dillingham Stowe (English).....	Old Town
Norman Gardiner Sturtevant (Economics & Sociology)...	Livermore Falls
Mary Ellen Thorpe (Mathematics).....	Presque Isle
Philip Rodney White (Economics & Sociology).....	Sebago
Philip Reed Wcnson (Economics & Sociology).....	Gloucester, Mass.
Bernice Burrows Young (Latin).....	Portland
Newman Harold Young (Economics & Sociology).....	Auburn

## BACHELOR OF PEDAGOGY

Alta Frances Jones.....	Portland
Ida Miller Peterson.....	Columbia
Grace Mildred Reed.....	Bangor
Mabel Angeline Small.....	Milbridge
Vera June Thompson.....	Houlton
Clifton Ennis Wass.....	Newport
Ella Cynthia Webber.....	Mapleton

## College of Technology

## BACHELOR OF SCIENCE

Edwin Dewey Anderson (in Chemical Engineering).....	Camden
Horace Barker Atkinson (in Civil Engineering).....	Morrill
John Hopkins Barnard (in Civil Engineering).....	Gardiner
Wilfred Donnell Bayley (in Mechanical Engineering).....	Wells
Jacob Wetmore Bishop (in Civil Engineering).....	Richmond
Joseph Kenneth Black (in Civil Engineering).....	Vinalhaven
Foster Batchelder Blake (in Electrical Engineering).....	Sedgwick
Clinton Robert Boothby (in Electrical Engineering).....	Livermore Falls
Arthur Moses Bowker (in Mechanical Engineering).....	Bath
Herbert Andrew Brawn (in Chemical Engineering).....	Bath
Edgar Sterling Brewer (in Mechanical Engineering).....	Portland
Henry Thomas Carey (in Mechanical Engineering).....	Portland
James Edward Carlin (in Chemistry).....	Bangor
Franklin Kenneth Chapman (in Mechanical Engineering).....	Old Town
Raymon Whitney Clough (in Mechanical Engineering).....	Portland
William Dewey Connon (in Electrical Engineering)....	Philadelphia, Pa
Ivan Lester Craig (in Civil Engineering).....	Caribou
Donald Howard Daniels (in Chemical Engineering).....	Portland
Lawrence Weston Davee (in Electrical Engineering).....	Orono
Paul DeCourcy (in Chemistry).....	Bucksport
Harlan Stuart Dennison (in Electrical Engineering).....	South Paris
Joseph Paul Dufour (in Civil Engineering).....	Madawaska
Gerald Perry Dunn (in Electrical Engineering).....	Old Town
Charles Albert Durham (in Civil Engineering).....	Monroe
Frank Brown Ells (in Electrical Engineering).....	Portland
George Haines Ferguson, Jr. (in Civil Engineering).....	Millinocket
William Nathaniel Field (in Civil Engineering).....	Old Town
Rodney Gerry Folsom (in Civil Engineering).....	Springvale
Simon Leonard Ginsberg (in Mechanical Engineering).....	Bangor
Stanton Glover (in Chemical Engineering).....	Rockland
Harold Gilmore Hall (in Civil Engineering).....	Bath
Philip Warren Ham (in Chemical Engineering).....	Dover-Foxcroft
Vinton Orris Harkness (in Mechanical Engineering).....	Veazie
Lynwood Scott Hatch (in Chemical Engineering).....	Old Town
Melvin Edward Healey (in Civil Engineering).....	Gloucester, Mass
Henry Francis Hill (in Civil Engineering).....	Augusta
Joseph Francis Hughes (in Civil Engineering).....	Bangor
Cecil Bachelder Huston (in Electrical Engineering).....	Patten
Leslie Waldo Hutchins (in Chemical Engineering).....	Cape Neddick
Harry Laton Jackson (in Electrical Engineering).....	Bath



Albert Edwin Johnson (in Civil Engineering)	.....New Britain, Conn.
Stanley Jordan Johnson (in Chemical Engineering)	.....Brewer
Robert Emmet Kelley (in Civil Engineering)	.....Willimantic, Conn.
Edward Freeland Kenney (in Chemistry)	.....Bangor
Ralph Gregory Kennison (in Electrical Engineering)	.....Madison
Robert William Laughlin (in Mechanical Engineering)	.....Portland
John Darwin McCrystle (in Chemical Engineering)	.....Berlin, N. H.
Eli Albert Marcoux (in Chemical Engineering)	.....Berlin, N. H.
Frederick Fairbrother Marston (in Electrical Engineering)	.....Portland
Arthur Danforth Mulvany (in Civil Engineering)	.....Bangor
James Francis O'Donnell (in Mechanical Engineering)	Northampton, Mass.
Parker William Patterson (in Civil Engineering)	.....Winslow
Stanley Wilbur Perkins (in Electrical Engineering)	.....Cape Porpoise
Walter Leo Perro (in Chemical Engineering)	.....Old Town
Albert Elliot Pitcher (in Mechanical Engineering)	.....Bangor
Wilbur Franklin Pray (in Civil Engineering)	.....Calais
Conan Althado Priest (in Electrical Engineering)	.....Ellsworth
Hyman Louis Rammer (in Chemical Engineering)	.....Portland
Iomer Franklin Ray (in Chemical Engineering)	.....St. Albans
LaForrest Francis Raymond (in Civil Engineering)	.....North Haven
Silas Sprague Reynolds (in Electrical Engineering)	.....Monmouth
Louis Rich (in Mechanical Engineering)	.....Portland
an MacNiven Rusk (in Civil Engineering)	.....West Townsend, Mass.
arl Aaron Sargent (in Mechanical Engineering)	....Westminster, Mass.
erry Rufus Shean (in Electrical Engineering)	.....Patten
fax Silverman (in Chemical Engineering)	.....Portland
verett Lufkin Smith (in Electrical Engineering)	.....East Orrington
ohn Raymond Smith (in Chemical Engineering)	.....Houlton
ndrew Everett Strout (in Mechanical Engineering)	.....Portland
aul Damian Sullivan (in Electrical Engineering)	.....Biddeford
enry Page Turner (in Electrical Engineering)	.....Casco
awrence Brooks Varney (in Mechanical Engineering)	.....Eastport
lwood Kempton Wilkins (in Mechanical Engineering)	.....Caribou
ugh Montgomery Williams (in Mechanical Engineering)	.....Guilford

## Advanced Degrees

### MASTER OF ARTS

### IN MATHEMATICS

arren Stanhope Lucas (B.A., Maine, 1914)	.....Orono
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## UNIVERSITY OF MAINE

## MASTER OF SCIENCE

## IN BIOLOGY

Marjorie Eunice Gooch (B.S., Maine, 1919).....Orono

## IN CHEMISTRY

Han King (B.S., Peking, 1920).....Ningpo, China  
Charles Manly Howell (A.B., Swarthmore, 1919).....Millerville, N. J.

## IN CHEMICAL ENGINEERING

John Newell Crombie (B. Chem., Pittsburgh, 1916).....Orono

## IN SOIL BACTERIOLOGY

Harry Woodbury Smith (B.S., Maine, 1909).....Orono

## CHEMICAL ENGINEER

Samuel Solomon Berger (B.S., 1917).....Espanola, Ont.  
Theodore Edward Kloss (B.S., 1917).....Iroquois Falls, Ont.

## CIVIL ENGINEER

Louis Abraham Benson (B.S., 1917).....New York, N. Y.  
Walter Marshall Murphy (B.C.E., 1895).....Brainerd, Minn.

## ELECTRICAL ENGINEER

Harold Wilhelm Coffin (B.S., 1916).....Augusta  
Donald Burke Perry (B.S., 1918).....New York, N. Y.

## College of Law

## BACHELOR OF LAWS

Michael Pilot.....Bangor  
(As of the Class of 1921)

## Certificate

### IN THE SCHOOL COURSE IN AGRICULTURE

Russell Manley Bailey.....	Waterville
Leslie Eustis Boothby.....	Livermore Falls
Reuben Madison Davis.....	Indian Point
Milton Bradford Hallett.....	Ashland
Irving Lester Howard.....	Waterville
Eben Averill Osgood.....	Kingman
Ralph Allan Pillsbury.....	Rangeley
William James Sprowle.....	Newport

*The following seniors who left the University for Military Service are graduated as of the class with which they entered:*

### As of the Class of 1919

Dwight Burgess Demeritt

### As of the Class of 1920

Harold Gilmore Hall  
 Vinton Orris Harkness  
 Albert Edwin Johnson  
 Fred Thompson Jordan  
 Herbert St. John Torsleff

### As of the Class of 1921

Ivan Lester Craig  
 Harry Laton Jackson  
 Eli Albert Marcoux  
 Thomas Arthur Murray

*The following seniors received commissions as Second Lieutenant of Infantry, Officers' Reserve Corps:*

Osgood Alden Nickerson  
 Lawrence Weston Davee  
 Harlan Stuart Dennison

### Honorary Degrees

Lincoln Ross Colcord, M. A.  
Frederick Hastings Strickland, M. A.  
John Belling, Sc.D.  
Harold Sherburne Boardman, D.Eng.  
Henry Sweetser Burrage, LL.D.  
Jeremiah Sweetser Ferguson, Sc.D.  
Clifton Daggett Gray, LL.D.  
James Norris Hart, Ph.D.  
Leon Stephen Merrill, Sc.D.  
Ashley Auburn Smith, D.D.  
James Stacy Stevens, Litt.D.  
Josiah William Votey, Sc.D.

## Catalog of Students

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Major subjects are indicated as follows: Ag. Agronomy, Ae. Agricultural Education, An. Animal Industry, Bb. Biblical Literature, Bc. Biological Chemistry, Bl. Biology, Ch. Chemistry, Ch. Eng. Chemical Engineering, Ce. Civil Engineering, Dh. Dairy Husbandry, Es. Economics, Ed. Education, Ee. Electrical Engineering, Eh. English, Fy. Forestry, Fr. French, Gm. German, Gk. Greek and Art History, Hy. History, He. Home Economics, Ht. Horticulture, Lt. Latin, Ms. Mathematics, Me. Mechanical Engineering, Ped. Pedagogy, Ph. Poultry Husbandry, Py. Psychology, Pp. Plant Pathology, Ps. Physics, Sp. Spanish and Italian. Chemistry in College of Arts and Sciences is indicated by Ch.A.

### GRADUATE STUDENTS

Arnold, Frances Elizabeth Stanislaus, B.A., Sp. Maine, 1910	<i>Orono</i>	11 Pond Street
Bailey, Marcia Edgerton, B.A., Eh. Oberlin, 1915	<i>Orono</i>	Oak Street
Beale, Frank Swan, B.S., Ms. Maine, 1921	<i>Orono</i>	33 Peters Street
Bless, Aaron, B.S., M.S., Ps. Temple, 1918, Maine, 1921	<i>Orono</i>	11 Main Street
Bonhard, Mabel Wood, A.B., M.A., Fr. Syracuse, 1892, 1895	<i>New York, N. Y.</i>	New York, N. Y.
Bragg, Marion Katharyn, B.A., Eh. Maine, 1921	<i>Orono</i>	60 Park Street
Brown, Edward Choate, A.B., Ms. Harvard, 1918	<i>Orono</i>	33 Bennoch Street
Buncke, Harry Jacob, C.E., Ch. Columbia, 1915	<i>Whitestone, L. I., N. Y.</i>	Whitestone, L. I., N. Y.
Carter, James Franklin, B.S., Ed. Bowdoin, 1917	<i>Rumford</i>	Rumford
Dennett, Winburn Albert, B.S., Ed. Maine, 1918	<i>Hopedale, Mass.</i>	Hopedale, Mass.
Dorsey, Llewellyn Morse, B.S., An. Maine, 1916	<i>Orono</i>	42 Forest Avenue
Dunn, Lillian Ring, B.A., Hy. Maine, 1922	<i>Orono</i>	51 Bennoch Street
Ellsworth, Vivian Margaret, A.B., Ps. Colby, 1915	<i>Wellesley, Mass.</i>	Wellesley, Mass.

Evans, Weston Sumner, B.S., Ce. Maine, 1918	<i>Orono</i>	College Road
Flewelling, Howard Lloyd, B.A., Eh. Dartmouth, 1921	<i>Orono</i>	Juniper Street
Fortier, Harry Earl, A.B., Ed. Bates, 1904	<i>Springfield</i>	Springfield
Foster, Hoyt Davis, B.Pd., Ed. Maine, 1916	<i>Deer Isle</i>	410 H. H. Hall
Frellick, Elizabeth Lincoln, A.B., Ed. Mount Holyoke, 1920	<i>Peak Island</i>	Peak Island
Gardner, Leigh Philbrook, B.S., An. Maine, 1918	<i>Orono</i>	North Main Street
Gordon, Eugene Bradley, A.B., Ed. Bowdoin, 1914	<i>Bar Harbor</i>	Bar Harbor
Gould, Sherman Jewett, B.S., Ps. Bates, 1916	<i>Orono</i>	11 Main Street
Hamm, Carol May, B.A., Fr. Maine, 1921	<i>Bangor</i>	Bangor
Hathorne, Helen Louise, B.A., Ed. Maine, 1922	<i>Orono</i>	R. F. D. #7, Bangor
Jenness, Leslie George, B.S., Ch.Eng. New Hampshire State, 1920	<i>Orono</i>	46 College Road
Jones, Eva Elizabeth, A.B., Bl. Radcliffe, 1920	<i>Orono</i>	148 College Road
Keegan, Sister Mary Eucharist, B.S.E., Fr. St. Joseph's, 1919	<i>Orono</i>	Main Street
Kellogg, Thelma Louise, B.A., Eh. Maine, 1918	<i>Orono</i>	University Inn
Larkin, Sister Mary Teresita, B.S.E., Ed. St. Joseph's, 1919	<i>Orono</i>	Main Street
Lockary, Sister Gertrude Mary, A.B., Ed. University of New Brunswick, 1914	<i>Bangor</i>	Bangor
Loring, Warren Edward, B.S., Ms. Tufts, 1918	<i>Orono</i>	13 Pine Street
McClelland, John Joseph, A.B., B.D., Ed. Amherst, 1907, Yale, 1910	<i>Carmel, N. Y.</i>	Carmel, N. Y.
McConville, Sister Mary Callista, B.S.E., Ed. St. Joseph's, 1919	<i>Orono</i>	Main Street
McGraw, Earl Cranston, B.A., Ed. Maine, 1922	<i>South Orrington</i>	South Orrington

McNally, Wayne Whitten, B.S., Ed. Colby, 1921	<i>Clinton</i>	Clinton
Marshall, Leon Otis, B.S., Bl. Maine, 1921	<i>Orono</i>	Campus
Mullen, Margaret Catherine, B.A., Eh. Trinity (Washington, D. C.), 1922	<i>Bangor</i>	47 Mill Street
Murphy, Sister Mary Eulalia, B.S.E., Ed. St. Joseph's, 1919	<i>Bangor</i>	Bangor
Noonan, Sister Mary Raymond, B.S.E., Ed. St. Joseph's, 1919	<i>Orono</i>	Main Street
O'Conner, Sister Christine Marie, B.S.E., Ed. St. Joseph's, 1919	<i>Bangor</i>	Bangor
Oplinger, Floyd Francis, B.S., M.S., Ch. Franklin & Marshall, 1919, Rochester, 1922	<i>Orono</i>	180 Main Street
Pearsall, Platt Ashley, B.S., Ch. Va. Poly. Inst., 1915	<i>Orono</i>	67 Main Street
Petersen, Christian William, B.A., Ed. Maine, 1921	<i>Portland</i>	Portland
Peterson, Bernese Loretta, A.B., A.M., Sp. Kansas, 1909, 1914	<i>Orono</i>	35 Park Street
Purdy, Walter William, B.S., Ch. Akron, 1919	<i>Orono</i>	36 Myrtle Street
Richards, Irving Trefethen, A.B., Eh. Bowdoin, 1920	<i>Orono</i>	106½ North Main Street
Ross, Irma Marion, A.B., Eh. Colby, 1917	<i>Corinna</i>	Corinna
Ross, Louise Alta, A.B., Ed. Colby, 1911	<i>Corinna</i>	Corinna
Seeley, George Mervil, A.B., Ch. Bates, 1913	<i>Orono</i>	57 Main Street
Small, Elmer Owen, A.B., Ed. Bates, 1915	<i>Newport</i>	Newport
Strausbaugh, John Anthony, B.A., Sp. Dickinson, 1919	<i>Orono</i>	University Inn
Streeter, Leon Reynolds, B.S., Bc. Colgate, 1919	<i>Geneva, N. Y.</i>	Geneva, N. Y.
Swift, Harold Clayton, B.S., An. Maine, 1918	<i>Orono</i>	Σ X House
Townsend, Doris Mosher, A.B., Eh. Wheaton, 1920	<i>Bangor</i>	Bangor



Violette, Augusta Genevieve, B.A., Eh. Maine, 1921	<i>Milford</i>	Milford
Wallace, Francis Doolittle, A.B., Eh. Cornell, 1921	<i>Orono</i>	53 Main Street
Wass, Clifton Ennis, B.Pd., Ed. Maine, 1922	<i>Newport</i>	Newport
Waugh, Evelyn Marguerite, B.Pd., B.A., Hy. Maine, 1918, 1919	<i>Winthrop</i>	48 Mill Street
Weeks, Victoria Olive, B.A., Sp. Maine, 1919	<i>Winthrop, Mass.</i>	Winthrop, Mass.
Wiggin, Walter Wentworth, B.S., Bl. New Hampshire State, 1921	<i>Orono</i>	50 Pine Street
Wilkins, Ralph Allen, B.S., Ch.Eng. Maine, 1919	<i>South Brewer</i>	South Brewer
Willis, Sister Mary Wilfred, B.S.E., Ed. St. Joseph's, 1919	<i>Bangor</i>	Bangor
Woldman, Norman Emme, B.S., M.S., Ch.Eng. Case, 1921, Ohio, 1922	<i>Orono</i>	13 Pine Street

## SENIORS

Ackley, Adrian Lowell, Ch. Eng.	<i>Peak Island</i>	Φ H K House
Aikins, Nelson Brown, Ee.	<i>South Windham</i>	404 H. H. Hall
Alexander, Donald Ford, Ee.	<i>Bangor</i>	Φ Γ Δ House
Alward, Harry Allen, Me.	<i>Bangor</i>	66 Court Street, Bangor
Anderson, Clifford Wendell, Ag.	<i>New Sweden</i>	401 H. H. Hall
Anderson, Paul Washburn, Me.	<i>Gloucester, Mass.</i>	Φ K Σ House
Archer, Ceylon Richard, Ee.	<i>Bangor</i>	Φ Γ Δ House
Austin, Chester Jordan, Ms.	<i>Greene</i>	Σ Φ Σ House
Averill, Virginia, Sp.	<i>Old Town</i>	Old Town
Bannister, Frank Cecil, Ee.	<i>Cornish</i>	Φ H K House
Bartlett, Annie Louise, Hy.	<i>Ashland</i>	Balentine Hall
Bates, Gerald Maynard, Ed.	<i>Portland</i>	Φ Γ Δ House
Bean, Myrtie Ann, He.	<i>Vienna</i>	Practise House
Beckett, Clarence Bertram, Es.	<i>Calais</i>	Σ X House
Berry, Charles Leslie, Ch. Eng.	<i>Portland</i>	6 Mill Street
Berry, Elizabeth, Eh.	<i>Rochester, N. H.</i>	Balentine Hall
Bisson, Adolph Lawrence, Fy.	<i>Skowhegan</i>	K Σ House
Bissonette, Helena Marie, Fr.	<i>Winthrop</i>	Balentine Hall
Blanchard, George Vinton, Es.	<i>Farmington</i>	Δ X A House
Burdick, Harold Aiken, Ee.	<i>Forest Hills, N. Y.</i>	407 H. H. Hall

Cahill, Harold Daniel, Ec.	Bangor	220 Third Street, Bangor
Calderwood, Robert Charles, Hy.	Waldoboro	309 H. H. Hall
Cary, Catharine, Lt.	Houlton	Mt. Vernon House
Christopherson, Wilbur Reed, Fy.	Gloucester, Mass.	Φ Γ Δ House
Chung, Henry U. Kong, Ch. Eng.	Hong Kong, China	
		29 Bennoch Street
Cleaves, Beatrice Nettie, Es.	Bar Harbor	Mt. Vernon House
Colbath, Virginia Lee, Sp.	Mars Hill	Mt. Vernon House
Cole, Janet Bonney, He.	Machiasport	Balentine Hall
Connelly, William James, Ch.A.	Pembroke	Main Street
Cony, Roland Francis, Hy.	Augusta	305 H. H. Hall
Cooney, Ardelle Agnes, He.	Brownville Junction	
		Practise House
Cooney, Harold James, Me.	Brownville Junction	Θ X House
Covell, Arthur Eugene, Me.	Hinckley	212 H. H. Hall
Creamer, Walter Joseph, Eh.	Bangor	331 Center Street, Bangor
B.S., Maine, 1918		
Cunningham, Everett Charles, Dh.	Patten	310 H. H. Hall
Currier, Lorenzo Gates, Ce.	Warren, N. H.	402 H. H. Hall
Curtis, Louis Everett, Ee.	Freeport	Φ Γ Δ House
Curtis, Theodore Small, Dh.	Freeport	Φ Γ Δ House
Cutler, Alexander Braun, Ch. Eng.	Old Town	Φ Ε Π House
Davis, Lyle Moody, Dh.	Newport	B Θ Π House
Davis, Philip Dunning, Ce.	Saco	211 H. H. Hall
Dennison, Katherine Lambert, He.	Brewer	Practise House
Desjardins, Louis Patrick, Me.	Lisbon Falls	306 Oak Hall
Dobbins, Frank Parker, Ed.	Farmington	Σ A E House
Dolliver, Franz Richard, Me.	Bangor	B Θ Π House
Doten, Henry Leroy, Ce.	Northfield	Σ Φ Σ House
Dow, Percy Melvin, Ag.	Mapleton	402 Oak Hall
Dow, William Reed, Ee.	Bangor	402 Oak Hall
Dunn, Gerald Cobb, Ht.	Monmouth	B Θ Π House
Elias, Fred Joseph, Es.	Bangor	167 Birch Street, Bangor
Emery, Howard Saunders, Ed.	Bar Harbor	408 Oak Hall
Fenderson, Henry Charles, Ch. Eng.	Saco	Σ A E House
Fernald, Roy Lynde, Es.	Winterport	10 Mill Street
Field, Frances Muriel, He.	Auburn	Practise House
Fogg, Raymond Gridley, Es.	Skowhegan	Σ Φ Σ House
Foss, William McKinley, Fy.	Bingham	Δ T Δ House
Fossett, Angela Bernice, Eh.	Portland	Balentine Hall
Fossett, Edward Carroll, An.	Bristol	Campus
French, Arthur Herbert, Ch.A.	Brewer	Σ A E House

Garsoe, Julius Oscar, Ht.  
 Gellerson, Nadine Marie, Sp.  
 Getchell, Ralph Augustus, Bl.  
 Gibbs, Kenneth Edmund, An.  
 Goldsmith, Ersley Levi, An.  
 Gonyer, Doris Marie, Fr.  
 Gould, Antoinette Walker, Es.  
 Gould, Clarence Bradford, Ce.  
 Gregory, Augustus Phillip, Ch.A.  
 Gross, David, Sp.

Hall, Clyde Newman, Dh.  
 Hall, Mabel Geneva, Sp.  
 Hall, Stanley Gilbert, Me.  
 Hamilton, Arabelle Gray, Eh.  
 Hamlin, Helen Beatrice, He.  
 Hamm, Clifton Marshall, Ed.  
 Harkness, Elizabeth Anna, Ms.  
 Harthorn, Pauline Dudley, He.  
 Hatch, Maurice Lester, An.  
 Hathorne, Philip Randall, Ce.  
 Hay, Lloyd Graham, An.  
 Hempstead, Alfred Geer, Hy.

Hersey, Rowene Elizabeth, Es.  
 Hescock, Milton Arthur, Ch. Eng.  
 Higgins, Leslie Verne, Ee.  
 Hitchings, Elizabeth Mae, Hy.  
 Hodgdon, Marie Ethelyn, Es.  
 Holden, Edward Wight, Dh.  
 Holmes, Melvin Jeffery, Dh.  
 Hope, Eric Stiles, Me.  
 Horne, Jacob McLellan, Jr.  
 Hoyt, David William, Es.  
 Humphreys, Helen May, Eh.

Ingersoll, Robert, Ag.

Johnson, Percy Leroy, Bl.  
 Johnson, Stuart Miles, Ee.  
 Johnson, Vernon Leslie, Ee.  
 Jones, Clayton Francis, Fy.  
 Jordan, Horace Stedman, Ce.

*Woodfords*             $\Delta$  X A House  
*Houlton*            Mt. Vernon House  
*Portland*             $\Sigma$  N House  
*Livermore Falls*    208 H. H. Hall  
*Gardiner*            112 H. H. Hall  
*Orono*                45 Mill Street  
*Bangor*               Mt. Vernon House  
*Bowdoinham*         $\Sigma$   $\Phi$   $\Sigma$  House  
*Fairfield*             $\Sigma$  N House  
*Bangor*    165 Essex Street, Bangor

*West Farmington*    $\Delta$  X A House  
*Caribou*              Balentine Hall  
*Dexter*                 $\Sigma$   $\Phi$   $\Sigma$  House  
*Orono*                 Mt. Vernon House  
*Gardiner*              Balentine Hall  
*Brooks*                 $\Delta$  X A House  
*Veazie*                Balentine Hall  
*Milford*               Balentine Hall  
*Old Town*             304 H. H. Hall  
*Woolwich*            108 H. H. Hall  
*Portland*               $\Phi$   $\Gamma$   $\Delta$  House

*Hampden Highlands*  
 408 Oak Hall

*Bangor*                Mt. Vernon House  
*Monson*                $\Phi$  K  $\Sigma$  House  
*Greene*                205 H. H. Hall  
*Caribou*               Balentine Hall  
*Berlin, N. H.*        Mt. Vernon House  
*Hebron*                 $\Phi$  K  $\Sigma$  House  
*Old Town*              $\Delta$  X A House  
*Newport*              67 Main Street  
*Portland*                $\Phi$   $\Gamma$   $\Delta$  House  
*Easton*                 $\Sigma$   $\Phi$   $\Sigma$  House  
*Brownville Junction*

Balentine Hall

*Old Town*            34 Pine Street

*Bar Harbor*           310 H. H. Hall  
*Brownville*            212 H. H. Hall  
*North Berwick*       203 H. H. Hall  
*Randolph, Vt.*        301 H. H. Hall  
*Veazie*                206 H. H. Hall

Jowett, John Naylor, Ce.	<i>Uxbridge, Mass.</i>	Σ N House
Judkins, Eshburn Oscar, Me.	<i>Upton</i>	108 H. H. Hall
Kaler, Stephen Scamman, Ce.	<i>South Portland</i>	Σ N House
Kearns, William Michael, Es.	<i>Gardiner</i>	B Θ Π House
Kincade, Rachel Louise, Eh.	<i>Portland</i>	Balentine Hall
Kingsbury, Elizabeth Edna, Eh.	<i>Biddeford</i>	Balentine Hall
Kittredge, Arthur Edmund, Me.	<i>South Portland</i>	211 H. H. Hall
Kneeland, Edwin Leroy, Ed.	<i>Princeton</i>	Φ Η Κ House
Knights, Allen George, Ed.	<i>Albion</i>	A T Ω House
Lappin, Chase Roger, Ee.	<i>Bryant Pond</i>	202 H. H. Hall
Larson, Albion Olaf, Me.	<i>Brownville</i>	212 H. H. Hall
Larson, Nealie William, Me.	<i>Brownville</i>	203 Oak Hall
Lawrence, Edward Stone, Ch. Eng.	<i>Gardiner</i>	Φ Γ Δ House
Leighton, Russell Smith, Ee.	<i>Columbia</i>	K Σ House
Libby, Millard Edward, Es.	<i>Milford</i>	Milford
Lineken, Edgar Elwyn, Ch. Eng.	<i>Thomaston</i>	Φ K Σ House
Lombard, Mildred Ena, Es.	<i>Sebago Lake</i>	Balentine Hall
Lord, Leonard, Ch.A.	<i>Saco</i>	A T Ω House
McGlauffin, Evelyn, Ms.	<i>Baring</i>	Balentine Hall
McGouldrick, George Harris, Ht.	<i>Portland</i>	University Inn
McKechnie, Ishmeal, Fy.	<i>Sanford</i>	Φ Η Κ House
McKeeman, Clyde Alexander, Me.	<i>Milltown</i>	Φ Η Κ House
McLeod, James Leslie, Ce.	<i>Bangor</i>	Σ N House
McNally, Cecil Hazen, Ce.	<i>Dexter</i>	Θ X House
McNamara, John Ernest, Es.	<i>Gardiner</i>	Θ X House
McPhee, Annie Marie, Bl.	<i>South Paris</i>	Balentine Hall
Malenaucka, Witalus George, Me.	<i>Auburn</i>	Σ X House
Manchester, Margaret, Fr.	<i>Northeast Harbor</i>	Mt. Vernon House
Mansur, Everett Brown, Ce.	<i>Bangor</i>	Φ Η Κ House
Mantor, Lois Churchill, Lt.	<i>North Anson</i>	Mt. Vernon House
March, Leland Samuel, Es.	<i>Old Town</i>	Σ N House
Matthews, Guy Orison, Me.	<i>Hampden Highlands</i>	301 Oak Hall
Maxim, Wilbur Chandler, Ee.	<i>Wayne</i>	49 Broadway
Merchant, Iva Angerona, Ht.	<i>Walnut Hill</i>	Mt. Vernon House
Merrill, Gladys Marion, He.	<i>Gardiner</i>	Balentine Hall
Merritt, Carleton Westwood, Fy.	<i>South Portland</i>	Θ X House
Meserve, Wilbur Ernest, Ee.	<i>Gorham</i>	16 Pine Street
Miller, Thor, Bl.	<i>Portland</i>	Λ X A House
Morrison, Crane Allison, Ee.	<i>Bangor</i>	25 Grove Street

Mullen, Joseph Norman, Ee.	<i>Bangor</i>	Φ Γ Δ House
Murchie, Ruth George, He.	<i>Calais</i>	Practise House
Newhall, George Dewey, Es.	<i>Cumberland Mills</i>	Λ X A House
Niles, Merle Clyde, Es.	<i>Rumford</i>	Λ X A House
Nissen, Rudolph Arnold, Ce.	<i>Portland</i>	Δ T Δ House
Norell, Oscar Elwin, Bl.	<i>Caribou</i>	Σ X House
O'Connor, Timothy Paul, Ce.	<i>Biddeford</i>	305 H. H. Hall
Partridge, Herbert George, Es.	<i>Searsport</i>	University Inn
Patten, Bryant McLellan, Es.	<i>Portland</i>	Φ Γ Δ House
Peabody, Mabel Blakeslee, Eh.	<i>Portland</i>	Mt. Vernon House
Pease, Ivan Ralph, Me.	<i>Winthrop</i>	Φ H K House
Perkins, Mary Crowell, Eh.	<i>Portland</i>	Mt. Vernon House
Perry, Elsie Beryl, Hy.	<i>Hallowell</i>	Balentine Hall
Place, Francia May, He.	<i>Dover-Foxcroft</i>	Practise House
Plummer, Roland Sparrow, Ed.	<i>Harrington</i>	Φ Γ Δ House
Pomeroy, Lendal Winslow, Ch. Eng.	<i>Gloucester, Mass.</i>	303 H. H. Hall
Porter, Wesley Fletcher, Dh.	<i>Patten</i>	K Σ House
Prentiss, Milton Carpenter, Me.	<i>Greenville</i>	Φ K Σ House
Prescott, Ithel Ezekiel, An.	<i>Sanford</i>	Λ X A House
Randlette, Howard Hamilton, Ed.	<i>Richmond</i>	K Σ House
Raymond, Horace Waterhouse, Me.	<i>North Jay</i>	Φ H K House
Ricker, Milton James, Ce.	<i>Flagstaff</i>	Σ A E House
Ring, Elizabeth, Hy.	<i>Orono</i>	3 Summer Street
Rogers, Arthur Edmund, Ee.	<i>Stillwater</i>	25 Grove Street
Rogers, Eleanor Hathaway, Hy.	<i>Newburyport, Mass.</i>	Balentine Hall
Rosenwald, Otto Harald, Ee.	<i>Portland</i>	207 H. H. Hall
Rowe, Cecil Allen, Ee.	<i>Dryden</i>	409 H. H. Hall
Russell, Cora Frances, Hy.	<i>Bangor</i>	Balentine Hall
Sanborn, Martha Amanda, He.	<i>Standish</i>	Practise House
Sawyer, Thelma Inga, Hy.	<i>Garland</i>	Balentine Hall
Sawyer, Wilbur Cranton, An.	<i>Westbrook</i>	Δ T Δ House
Seymour, John Lawrence, Ch. Eng.	<i>New York, N. Y.</i>	312 H. H. Hall
Shaw, John Hayes, An.	<i>Springvale</i>	Λ X A House
Shaw, Sterling Eugene, Es.	<i>Caribou</i>	7 Pleasant Street
Shepherd, Charles Joseph, Dh.	<i>Corinna</i>	Σ A E House
Shorey, Helen Elizabeth, Ms.	<i>Dover-Foxcroft</i>	Balentine Hall
Simmons, Ralph Morse, Ee.	<i>Belfast</i>	311 H. H. Hall
Simpson, Oscar Salisbury, Bl.	<i>Marlboro, Mass.</i>	College Road



Simpson, William Andrew, Ed.	Marlboro, Mass.	College Road
Small, Clinton Edgar, Dh.	South Portland	55 Park Street
Small, Frank Mark, Dh.	Orono	27 Park Street
Smith, George Daniel, Es.	Northampton, Mass.	Δ T Δ House
Snow, Pearl Marguerite, Ped.	Exeter	Balentine Hall
Spear, Ruth Helen, Es.	Rockland	Balentine Hall
Stackpole, Ida Mae, Sp.	Bridgewater	Balentine Hall
Stanchfield, Nina Bessie, Ms.	Veazie	R. F. D. #7, Bangor
Staples, Gladys Louise, Sp.	Bangor	Mt. Vernon House
St. Clair, Leo James, Ee.	Gorham, N. H.	Δ T Ω House
Stevens, Philip Haskell, Ee.	Auburn	Δ X Δ House
Stevens, Ronald Cecil, Fy.	Kingfield	Φ K Σ House
Stewart, Oscar Earle, Ch. Eng.	Saco	Δ T Ω House
Stickney, Fernald Stanley, Me.	Brownville	Σ N House
St. Pierre, Lionel Eugene, Ce.	Auburn	49 Broadway
Stuart, Ervin, Es.	Weeks Mills	B Θ Π House
Stuart, Richard Bryson, Ce.	Houlton	Φ K Σ House
Sullivan, Frederick Joseph, Es.	Bangor	69 Walter Street, Bangor
Taylor, Charles Grandison, Me.	Foxboro, Mass.	Σ X House
Thomas, Daniel Ferris, Ch.A.	Camden	Φ K Σ House
Thomas, Edgar Weymouth, Ch. Eng.	Portland	6 Mill Street
Thomas, Ralph Edwin, Ee.	Camden	Φ K Σ House
Tibbetts, Margaret Alice, Ped.	Exeter	Balentine Hall
Titcomb, Clarence Joseph, Dh.	Farmington	Δ X Δ House
Tourangeau, Theodore Joseph, Ce.	Westbrook	Σ A E House
Trecartin, Fred Elmore, Es.	Lubec	K Σ House
Turner, Constance Marion, He.	Gardiner	Balentine Hall
Twitchell, Doris Frances, Ch.A.	Old Town	Balentine Hall
Varney, Frances Josephine, Bl.	South Berwick	Balentine Hall
Ware, Cecil Arthur, An.	Hampden Highlands	301 Oak Hall
Weatherbee, Harriet, Ms.	Lincoln	Balentine Hall
Webb, Fred DeLancey, Es.	Houlton	Θ X House
Webb, George Hersey, Fy.	Bartlett, N. H.	B Θ Π House
Webber, Verlie Armand, Ch. Eng.	Kittery	109 H. H. Hall
Webster, Frankie, He.	Deer Isle	Practise House
Welch, Harold Emerson, Ee.	Freeport	201 Oak Hall
Weymouth, Albert Edward, Fr.	Old Town	Old Town
Whitcomb, Morton Church, Ed.	Ellsworth	Σ X House
Wilkins, Roland Lewis, An.	North Jay	Campus
Willey, Marjorie D., Ms.	Bar Harbor	Mt. Vernon House
Williams, Roger, Dh.	Guilford	406 Oak Hall
Wilson, Arthur Edward, Es.	Orono	Σ A E House



Wilson, Howard Edmund, Ee.	<i>Belfast</i>	212 H. H. Hall
Wilson, Walter Orlando, Dh.	<i>Leeds</i>	Σ A E House
Winslow, Arthur Franklin, Ch.	<i>Freeport</i>	307 H. H. Hall
Winslow, Eunice Hazel, Lt.	<i>Rockland</i>	Balentine Hall
Winslow, John Clifford, Ee.	<i>Westbrook</i>	Δ X A House
Wiswell, Sarah Chaloner, Ms.	<i>Machias</i>	Mt. Vernon House
Young, Harvard Gerone, Me.	<i>East Surry</i>	Φ H K House

## JUNIORS

Abbott, Elmer Bradley Benson, Ce.	<i>Hollis Center</i>	311 Oak Hall
Annett, James Gordon, Ch.A.	<i>South Berwick</i>	Θ X House
Arangelovich, Danitza, Ht.	<i>Belgrad, Serbia</i>	83 Park Street
Ayer, Hazen Hunter, Es.	<i>Union</i>	Φ K Σ House
Baker, Chester Addison, Ee.	<i>Gorham</i>	412 H. H. Hall
Baker, Gregory, Fy.	<i>Bingham</i>	Φ K Σ House
Barney, George Curtis, Ee.	<i>Orono</i>	75 Mill Street
Barstow, Ruth Helen, He.	<i>Calais</i>	Balentine Hall
Beal, Carl Lewis, Ch. Eng.	<i>Phillips</i>	202 H. H. Hall
Beckett, Charles Louis, Ht.	<i>Calais</i>	Σ A E House
Beckett, Edith Louisa, He.	<i>Calais</i>	Mt. Vernon House
Beckett, Lloyd Stanley, Ee.	<i>Calais</i>	Σ X House
Bennett, Aileen Helen, Lt.	<i>New Gloucester</i>	Balentine Hall
Berg, Eric Olaf, Ms.	<i>Rangeley</i>	Σ N House
Bessey, Ruth Anna, Lt.	<i>Saco</i>	Balentine Hall
Bowen, Howard Lancaster, Ms.	<i>Bangor</i>	
	213 Center Street, Bangor	
Boynton, Henry Stanwood, Ch. Eng.	<i>Orono</i>	Α T Ω House
Bragdon, Leonard Jellison, Ce.	<i>Franklin</i>	401 H. H. Hall
Brasseur, Herbert Slaunwhite, Me.	<i>Haverhill, Mass.</i>	Φ K Σ House
Brown, Frederick Coombs, Ee.	<i>Lincolnville</i>	407 H. H. Hall
Buck, Clifford Hilyard, Me.	<i>Eastport</i>	Θ X House
Burke, Frank Valentine, Ed.	<i>Randolph</i>	Θ X House
Burns, Ralph Matthew, Es.	<i>Houlton</i>	Σ X House
Burr, Wilfred Chadbourne, Me.	<i>Mattawamkeag</i>	204 H. H. Hall
Caplan, Lewis, Ce.	<i>Portland</i>	74 North Main Street
Carey, Francis Gerald, Es.	<i>West Somerville, Mass.</i>	
	7 Summer Street	
Carlin, Thomas James, Ch. Eng.	<i>Bangor</i>	68 Pearl Street, Bangor
Carville, Ellsworth Maguire, Ee.	<i>North Leeds</i>	401 Oak Hall
Carter, Ray Horace, Ag.	<i>Washburn</i>	204 H. H. Hall
Caulfield, John George Leslie, Ch. Eng.	<i>Bangor</i>	189 State Street, Bangor

Chadwick, Lois Lillian, Lt.	<i>Machias</i>	Balentine Hall
Chalmers, James Amasa, Ch. Eng.	<i>Albion</i>	Φ Η Κ House
Chase, Harold Jasper, Me.	<i>Portland</i>	Σ Α Ε House
Chase, Kenneth Webster, Ee.	<i>Cumberland Center</i>	Σ Χ House
Clapp, Harlan Luther, Ch.	<i>Bangor</i>	
	95 Sanford Street, Bangor	
Clark, Adelbert Bruce, Ae.	<i>Millinocket</i>	87 North Main Street
Clark, Frank Howard, Ag.	<i>Bridgton</i>	403 H. H. Hall
Clifford, Stanley Burnham, Me.	<i>North Edgecomb</i>	312 H. H. Hall
Cloudman, Arthur Mosher, Ae.	<i>Saco</i>	149 Main Street
Cooper, George Hubert, Ch. Eng.	<i>Presque Isle</i>	409 H. H. Hall
Copeland, Mary Lillian, Ms.	<i>Brewer</i>	Balentine Hall
Crane, Carl Hudson, Ce.	<i>Dover-Foxcroft</i>	Σ Ν House
Crehore, Sarah Elizabeth, He.	<i>La Grange</i>	180 Main Street
Currier, Theodore Shirley, Hy.	<i>Amesbury, Mass.</i>	Α Τ Ω House
Cutting, Edward Chapman, Es.	<i>Warren</i>	Φ Κ Σ House
Cyphers, Kenneth Leigh, Ee.	<i>Dexter</i>	201 H. H. Hall
	<i>Westbrook, Conn.</i>	111 H. H. Hall
Deuse, James Smith, Me.	<i>Bangor</i>	83 First Street, Bangor
Dolley, Roland Greeley, Es.	<i>Manset</i>	27 Park Street
Dolliver, Morris Augustus, Ch.	<i>Turners Falls, Mass.</i>	Θ Χ House
Donovan, John March Francis, Jr., Es.	<i>Amesbury, Mass.</i>	104 Oak Hall
Dow, Lowell Jordan, Ee.	<i>Livermore Falls</i>	Σ Ν House
Driscoll, Merwyn Ruez, Ee.	<i>Dixfield</i>	Φ Κ Σ House
Dunham, Earl Maynard, Ee.	<i>Randolph</i>	Θ Χ House
Durgin, Harold Lile, Ee.		
Eastman, Arthur Fessenden, Ee.	<i>Wollaston, Mass.</i>	Φ Γ Δ House
Edwards, Frank Blodgett, Fy.	<i>Gorham, N. H.</i>	Κ Σ House
Farnham, Arthur Lionel, An.	<i>Orland</i>	309 H. H. Hall
Fayle, Leslie Edwin, Bl.	<i>Old Town</i>	Old Town
Feldman, Ernest, Gm.	<i>Chelsea, Mass.</i>	10 Mill Street
Fisher, Harry Sherwood, Ee.	<i>Ridlonville</i>	312 Oak Hall
Foster, Ralph Wyman, Me.	<i>Newcastle</i>	Φ Η Κ House
Friend, Mary Hattie, Ms.	<i>Skowhegan</i>	Balentine Hall
Fuller, Annie Myrtle, Ped.	<i>Pittsfield</i>	32 Mill Street
Garland, Cecil Gladstone, Es.	<i>Bangor</i>	259 Union Street, Bangor
Gay, Thomas Edward, Eh.	<i>Newcastle</i>	Β Θ Η House
Gentile, Michael Charles, Es.	<i>Rumford</i>	105 Oak Hall
George, Albert Cedric, Es.	<i>Fitchburg, Mass.</i>	Θ Χ House
Getchell, Philip Eugene, Ae.	<i>East Machias</i>	117 Mill Street
Gott, Albert Richard, Me.	<i>Orland</i>	309 H. H. Hall
Grant, Judson Milton, Ms.	<i>Carmel</i>	Old Town

Grant, Wallace Mitchell, Me.  
 Graves, Royal Sanford, Ee.  
 Green, Anna Eleanor, Fr.  
 Greenleaf, John Adams, Me.  
 Griffin, Guy Eben, Ce.

*Hall Quarry* 54 Pine Street  
*Lisbon Falls* 7 Park Street  
*Old Town* Old Town  
*North Edgecomb* 312 H. H. Hall  
*Old Town* 202 H. H. Hall

Hadlock, Edwin Harold, Ms.  
 Hagerthy, Lawrence Milton, Bl.  
 Hall, Rebecca Bell, Sp.  
 Ham, John Raymond, Me.  
 Handy, Francis Edward, Ee.  
 Harmon, William Edward, Ae.  
 Harriman, Philip Ainslee, Ed.  
 Haskins, William Deane, Ht.  
 Hatch, Theodore Frederick, Ce.  
 Hawes, Arthur LaFayette, Es.  
 Hawes, Frederick Albert, Es.  
 Hayes, James Louis, Ch. Eng.  
 Higgins, Milton Ermond, Ed.  
 Hills, Frederick Gilbert, Fy.  
 Hilton, George Carroll, Ht.  
 Hilton, Walter Getchell, Me.  
 Hitchings, Barbara Gertrude, Sp.  
 Hodgdon, Fernald, Ag.  
 Hodgdon, Philip Winslow,, Es.  
 Holt, Hillis Wyman, Me.  
 Hoos, Benjamin, Ch. Eng.  
 Horsman, Louis Cecil, Ce.  
 Howe, Harold Walker, Me.  
 Hunt, Elizabeth Frances, Eh.  
 Huston, Robert Daniel, Ee.  
 Hutchins, Bentley Staples, Fy.  
 Hutchinson, Ralph Melville, Fy.

*Portland* 25 Myrtle Street  
*Sedgwick*  $\Sigma \Phi \Sigma$  House  
*East Machias* Balentine Hall  
*Monmouth* 102 H. H. Hall  
*Augusta* 412 H. H. Hall  
*Caribou*  $\Theta X$  House  
*North New Portland*  $\Sigma N$  House  
*Saco* 23 Spencer Street  
*Dark Harbor*  $\Delta X A$  House  
*Worcester, Mass.* 10 Mill Street  
*Worcester, Mass.* 10 Mill Street  
*Biddeford*  $A T \Omega$  House  
*Bar Harbor* Stillwater  
*Bangor* 204 H. H. Hall  
*Bridgton* 402 H. H. Hall  
*Norridgewock* 201 Oak Hall  
*Caribou* Balentine Hall  
*Millinocket* 111 Oak Hall  
*Portsmouth, N. H.*  $B \Theta \Pi$  House  
*North Orrington* 404 H. H. Hall  
*Old Town*  $\Phi E \Pi$  House  
*Presque Isle*  $\Theta X$  House  
*Deer Isle*  $\Sigma A E$  House  
*Woodfords* Balentine Hall  
*Woodfords* 303 H. H. Hall  
*Bangor*  $\Sigma N$  House  
*Houlton*  $\Phi K \Sigma$  House

Irving, Iome Belle, Eh.

*Clinton* Mt. Vernon House

Jackson, Theresa Mary, Eh.  
 Jacobs, David, Bl.  
 Johnson, Beatrice Winnifred, Bl.  
 Johnson, Melville Hunnewell, Ee.  
 Jones, Albert Eugene, Ee.  
 Jordan, Leonard Barker, Ed.  
 Judkins, Perry Wendall, Me.

*Waterville* Balentine Hall  
*Lawrence, Mass.*  $\Phi E \Pi$  House  
*Portland* Balentine Hall  
*Portland* 312 H. H. Hall  
*Bridgton*  $K \Sigma$  House  
*Westbrook*  $K \Sigma$  House  
*Upton* 108 H. H. Hall

Katz, Samuel Sawyer, Es.	<i>Hartford, Conn.</i>	67 Main Street
Keene, Alice Mary, Hy.	<i>Camden</i>	Balentine Hall
Kelley, Harold Lee, Ee.	<i>Lubec</i>	112 H. H. Hall
Kennison, Conrad Earl, Es.	<i>Madison</i>	Φ H K House
Keyes, Barbara Philena, Eh.	<i>Rockland</i>	Mt. Vernon House
King, Ebenezer Baker, Ce.	<i>Peabody, Mass.</i>	Σ N House
King, Oral Glenwood, Ce.	<i>New Portland</i>	Λ T Ω House
Ladd, Harland Augustine, Ee.	<i>Dover-Foxcroft</i>	Δ T Δ House
Ladd, Vaughn Loring, Me.	<i>Dover-Foxcroft</i>	Σ N House
Lee, Marjorie Elizabeth, Ped.	<i>Danforth</i>	83 Park Street
Libbey, Margaret Mary, Sp.	<i>Orono</i>	28 Pond Street
Lindahl, Frederick Morey, Me.	<i>West Springfield, Mass.</i>	104 Oak Hall
Lockwood, John Elmer, Jr., Fy.	<i>Old Town</i>	Old Town
Lord, Esther Angelia, Ped.	<i>Bangor</i>	47 Mill Street
Lord, George Edgar, Dh.	<i>West Lebanon</i>	Λ X Δ House
Lunge, Raymond Frank, Es.	<i>Kennebunk</i>	Σ N House
Luther, Justin Joseph, Me.	<i>Hadlyne, Conn.</i>	111 H. H. Hall
McCann, Honor Burke, Lt.	<i>Biddeford</i>	Balentine Hall
MacDonald, William Rogers, Jr., Ee.	<i>South Portland</i>	84 Park Street
McKechnie, Karl Harold, Fy.	<i>Fairfield</i>	Δ T Δ House
McKenzie, Virgil Linwood, Me.	<i>Old Town</i>	Old Town
Mackay, Roger Daniel, Es.	<i>East Milton, Mass.</i>	Σ N House
Magill, Gerald Avery, Ee.	<i>Caribou</i>	302 H. H. Hall
Mahaney, Edrie, Es.	<i>Bangor</i>	Balentine Hall
Martin, John Stanley, Ch. Eng.	<i>Tamworth, N. H.</i>	410 H. H. Hall
Meinecke, Carl Whitcomb, Ce.	<i>Bangor</i>	26 Jefferson Street, Bangor
Merrill, Julian Haskell, Jr., Fy.	<i>Orono</i>	117 Bennoch Street
Messer, Louise Elinor, Fr.	<i>Old Town</i>	Old Town
Monroe, Theodore William, Es.	<i>Milo</i>	Σ A E House
Moody, Dwight Lyman, Ped.	<i>Danforth</i>	109 Oak Hall
Morrill, Frank Baxter, Me.	<i>Milo</i>	60 Park Street
Morrill, Paul Morris, Fy.	<i>Biddeford</i>	210 H. H. Hall
Mulligan, James Edward, Ee.	<i>Damariscotta Mills</i>	211 Oak Hall
Munsey, Virdell Everard, Ch. Eng.	<i>Newcastle</i>	95 Mill Street
Mutty, Dolores Mary, Ms.	<i>Old Town</i>	Old Town
Myers, Ellen Oshea, Es.	<i>Orono</i>	18 Forest Avenue
Newell, Harry Stanley, Ed.	<i>Old Town</i>	Θ X House
Noonan, Alice Beatrice, Lt.	<i>Calais</i>	Balentine Hall
Noyes, Albert Stevens, Ed.	<i>Lubec</i>	Θ X House
Noyes, Charles Edwin, An.	<i>Norway</i>	207 H. H. Hall

Nutting, Percy Lyman, Me.	<i>Skowhegan</i>	Σ Φ Σ House
Oak, Philip Tracy, Ch. Eng.	<i>Bangor</i>	B Θ Π House
O'Connor, Ernest Anthony, Ch. Eng.	<i>Biddeford</i>	410 Oak Hall
O'Connor, Michael Henry, Ee.	<i>Biddeford</i>	308 H. H. Hall
Osgood, Clayton Plummer, Dh.	<i>Fryeburg</i>	210 H. H. Hall
Osgood, Earl Pike, An.	<i>Fryeburg</i>	Campus
Patterson, William Wesley, Eh.	<i>Corinna</i>	210 H. H. Hall
Peakes, Arthur Lambert, Es.	<i>Milo</i>	Θ X House
Perch, Paul, Me.	<i>Leominster, Mass.</i>	305 Oak Hall
Perkins, Belford Ashton, Me.	<i>North Brooksville</i>	Φ Η K House
Perkins, Henry Girard, Me.	<i>West Brooksville</i>	College Road
Perkins, Wallace Winfield, Ee.	<i>Bluehill</i>	Σ Φ Σ House
Phillips, Neal Winslow, Ch. Eng.	<i>Portland</i>	Σ X House
Pierson, Ellen Victoria, Ped.	<i>Garland</i>	Balentine Annex
Pinkham, Wendell Wadsworth, Es.	<i>Portland</i>	K Σ House
Plummer, Bernie Elliott, Jr., An.	<i>Weld</i>	Campus
Plummer, Lester Lacy, Ed.	<i>Harrington</i>	Φ Γ Δ House
Pratt, Laura Estelle, Ped.	<i>Troy</i>	Balentine Annex
Pretto, Lenora Sylvia, Fr.	<i>Orono</i>	Pine and Elm Streets
Pride, Eva Sweetsir, Bl.	<i>Woodfords</i>	Balentine Hall
Reiche, Howard Charles, Bl.	<i>Portland</i>	B Θ Π House
Riecker, William Christie, Ch. Eng.	<i>Portland</i>	29 Bennoch Street
Rigney, Helen Hope, Eh.	<i>Waterville, Conn.</i>	32 Mill Street
Ring, Chester Allen, Ce.	<i>Bangor</i>	A T Ω House
Roberts, Philip Carroll, Ch. Eng.	<i>Woodfords</i>	Σ X House
Robinson, Gerald Norman, Es.	<i>Bangor</i>	473 Union Street, Bangor
Rosenberg, Samuel Louis, Es.	<i>Portland</i>	Φ Ε Π House
Ross, George Harold, Es.	<i>Robbinston</i>	25 Mill Street
Rowe, Marjorie Harriette, He.	<i>Brewer</i>	Balentine Hall
Sargent, Harold Dean, Ee.	<i>Patten</i>	Θ X House
Sargent, Philip Arthur, Fy.	<i>Sargentville</i>	401 Oak Hall
Saunders, George Elden, Ee.	<i>Townsend, Mass.</i>	Δ X A House
Savage, Ruth Herrick, Fr.	<i>Bangor</i>	Mt. Vernon House
Savage, Vera May, Ms.	<i>Bangor</i>	Balentine Hall
Sayward, Warren Albert, Me.	<i>Alfred</i>	102 Oak Hall
Schultz, Stanley Merrill, Ee.	<i>Lisbon Falls</i>	210 Oak Hall
Sinnott, Chester Maxim, Ee.	<i>Bailey Island</i>	Σ Φ Σ House
Skolfield, George Lincoln, Ee.	<i>Weld</i>	310 H. H. Hall
Skolfield, John Theodore, Me.	<i>Brunswick</i>	Φ K Σ House
Small, Henry Dyer, Ms.	<i>Charleston</i>	Σ X House
Small, John Alvin, Ae.	<i>Newport</i>	87 North Main Street



Small, John Gilman, Es.	<i>Orono</i>	24 Mill Street
Smith, Fred Emery, Ch. Eng.	<i>Westbrook</i>	101 H. H. Hall
Smith, Robert Leverett, Es.	<i>Gloucester, Mass.</i>	Δ T Δ House
Sparks, Regina Frances, Fr.	<i>Old Town</i>	Old Town
Sparrow, Theron Alonzo, Me.	<i>Hampden Highlands</i>	Σ N House
Spear, Willard Walker, Ht.	<i>South Portland</i>	Σ X House
Spearin, Clarence Milton, Ag.	<i>Clinton</i>	210 H. H. Hall
Stackpole, George Kenneth, Me.	<i>Sanford</i>	B Θ Π House
Stanley, Alice Gertrude, Ms.	<i>Bangor</i>	Mt. Vernon House
Stearns, Drew Thompson, Fy.	<i>Hebron</i>	Σ N House
Stevens, Carl William, Dh.	<i>Millinocket</i>	Σ A E House
Stevens, Dearborn Bearce, Me.	<i>Ashland</i>	Φ H K House
Stevens, Hollice Linwood, Ee.	<i>Harrington</i>	54 Pine Street
Stevens, John Lewis, Ee.	<i>Woodfords</i>	Σ A E House
Steward, Colby Weston, Me.	<i>St. Johnsbury, Vt.</i>	46 College Road
Strong, Willard Emmons, Jr., Dh.	<i>Vassalboro</i>	Σ X House
Sullivan, Walter Gregory, Ee.	<i>Orono</i>	212 Main Street
Sweatt, Chester Volney, Fy.	<i>Andover</i>	206 H. H. Hall
Swett, Stanton LaForest, Me.	<i>Mexico</i>	312 Oak Hall
Taylor, Philip Hector, Es.	<i>Worcester, Mass.</i>	Φ Γ Δ House
Tibbetts, Sylvia Elizabeth, Gm.	<i>Vanceboro</i>	Balentine Hall
Trask, Harvey Richard, Me.	<i>Randolph</i>	B Θ Π House
Vaitses, Theodore Jack, Es.	<i>Melrose, Mass.</i>	6 Mill Street
Van Den Kerckhoven, Eugene	<i>Bethel</i>	104 H. H. Hall
Addison, Ee.		
Wadsworth, John Emile, Es.	<i>Skowhegan</i>	Δ X A House
Waterhouse, Ruth, He.	<i>Biddeford</i>	Balentine Hall
Waterhouse, Ruth Elva, Fr.	<i>Old Town</i>	Old Town
Wentworth, Helen Bernice, Eh.	<i>Bangor</i>	R. F. D. #1, Bangor
Wescott, Donald Henry, Fy.	<i>Jonesport</i>	209 H. H. Hall
West, Frank Raymond, Ee.	<i>Old Town</i>	Old Town
Westcott, Guy Sterling, Ee.	<i>Sebago Lake</i>	Φ H K House
Wheeler, Grant Julius, Bl.	<i>East Orange, N. J.</i>	Φ H K House
Whitcomb, Paul Langley, Ed.	<i>Ellsworth</i>	Σ X House
Whiteside, Elizabeth Mildred, Sp.	<i>Sanford</i>	Mt. Vernon House
Whitten, Charles Albert, Ce.	<i>New Portland</i>	16 Pine Street
Whitten, Hugh Otis, Ce.	<i>Farmingdale</i>	Θ X House
Villey, Arthur Osgood, Me.	<i>Gardiner</i>	Θ X House
Viswell, Harry Steves, Fy.	<i>Machias</i>	Φ Γ Δ House
Wood, Herbert James, Ed.	<i>Lewiston</i>	K Σ House
Woodbury, Kenneth Foster, Ee.	<i>New Gloucester</i>	Δ X A House



Woods, Phillip Edgar, Ce.	<i>Kittery</i>	102 H. H. Hall
York, George Oscar, Jr., Fy.	<i>Old Town</i>	Φ K Σ House

## SOPHOMORES

Adams, Rose Mary, Fr.	<i>Rockland</i>	Balentine Hall
Adams, Thomas Edward, Fy.	<i>Jackman</i>	401 H. H. Hall
Allen, William Mayo, Ch. Eng.	<i>Portland</i>	Θ X House
Ammidown, Theodore Warren, Me.	<i>Boston, Mass.</i>	57 Park Street
Andrews, Egbert Morrill, Bl.	<i>Gray</i>	Σ N House
Andrews, John Southard, Ch.	<i>Gray</i>	311 H. H. Hall
Andrews, Lois May, He.	<i>Stillwater</i>	Stillwater
Armstrong, Grace Phelps, He.	<i>Rockland</i>	Balentine Hall
Aronson, Eli, Me.	<i>Hartford, Conn.</i>	6 Myrtle Street
Ashley, Anna Matilda, Eh.	<i>Bangor</i>	College Road
Atkins, Katherine Emily, Lt.	<i>Bangor</i>	Balentine Hall
Bailey, Margery Evelyn, Ps.	<i>Dexter</i>	39 Mill Street
Banks, Curtis Forbush, Eng.	<i>Westboro, Mass.</i>	Σ X House
Bartlett, Edmund Hobart, Ch.A.	<i>Orono</i>	148 College Road
Beal, Edith Annette, Fr.	<i>Bangor</i>	Balentine Hall
Bean, Hervey Selden, Ag.	<i>Vienna</i>	306 H. H. Hall
Behringer, John Stephen, Sp.	<i>Elmhurst, N. Y.</i>	405 H. H. Hall
Belyea, Harry Alton, Es.	<i>Gardiner</i>	25 Mill Street
Berce, Hudson Carleton, Ag.	<i>Caribou</i>	7 Pleasant Street
Berrie, Lloyd Harvey, Es.	<i>Houlton</i>	Σ X House
Besse, Arlene Day, Eh.	<i>Albion</i>	Mt. Vernon House
Blair, James Tweedie, Ag.	<i>Medford, Mass.</i>	Δ T Δ House
Blake, Ralph Scott, Ch. Eng.	<i>Houlton</i>	Σ X House
Blethen, Lawrence Burton, Me.	<i>Dover-Foxcroft</i>	Δ X A House
Boston, Jane Hilda, He.	<i>Athens</i>	Balentine Hall
Bouchard, George Irving, Ee.	<i>East Millinocket</i>	Θ X House
Boucher, Clement Wendell, Ce.	<i>Groveton, N. H.</i>	203 H. H. Hall
Bowden, Mervin Ives, Ag.	<i>Bluehill</i>	411 H. H. Hall
Boyden, James Parker, Jr., Ee.	<i>Brookline, Mass.</i>	A T Ω House
Brackett, Madalene, Ms.	<i>Milo</i>	Balentine Hall
Bragdon, George Alec, Ms.	<i>Franklin</i>	401 H. H. Hall
Bridgham, Edward Theodore, Me.	<i>Brewer</i>	Brewer
Brown, Edna Elizabeth, Ms.	<i>Bangor</i>	Balentine Hall
Brown, Mildred Greely, He.	<i>Readfield Depot</i>	32 Mill Street
Brown, Stephen Sylvester, Bl.	<i>Mars Hill</i>	8 Island Avenue
Bryant, Hortense Genevieve, Lt.	<i>Portland</i>	Mt. Vernon House
Bunker, Alice Maude, He.	<i>Bangor</i>	Mt. Vernon House
Bunton, Walter Joseph, Es.	<i>Livermore Falls</i>	Σ N House

Burbank, Charles Payson, Ag.	<i>Yarmouth</i>	B Θ Π House
Burditt, Donald Brimigion, Bl.	<i>Rumford</i>	Δ T Δ House
Burton, Helen Charlotte, He.	<i>Sangerville</i>	Balentine Annex
Burton, Raymond Harold, Fy.	<i>Portland</i>	Σ N House
Cambell, Charles Osborne, Fy.	<i>Gray</i>	Φ H K House
Cambell, Chester Wendell, Ce.	<i>Gray</i>	Φ H K House
Candage, Harry Wells, Ce.	<i>Waterville</i>	7 Pleasant Street
Chandler, John Winthrop, Ce.	<i>Newcastle</i>	212 Oak Hall
Chippendale, John Thomas, Jr., Es.	<i>Auburn</i>	Λ X Δ House
Clarke, Catherine Louise, Fr.	<i>Pemaquid</i>	Balentine Hall
Clement, Bernice Winona, Lt.	<i>North Jay</i>	Balentine Hall
Clements, Norris Charles, Ag.	<i>Winterport</i>	405 H. H. Hall
Coburn, Aura Eugene, Ch. Eng.	<i>Dover-Foxcroft</i>	Δ T Δ House
Cohen, Nathan Robert, Es.	<i>Bangor</i>	Φ E Π House
Collins, Charles Sidney, Ee.	<i>Portland</i>	Λ X Δ House
Comins, Rubena Isabella, Lt.	<i>Brewer</i>	Brewer
Conant, Charles Tyler, Ag.	<i>Winterport</i>	College Road
Connors, Anna Francesca, Eh.	<i>South Eliot</i>	36 College Road
Crowley, Joseph Fred, Me.	<i>Biddeford</i>	410 Oak Hall
Curran, Edward Matthew, Es.	<i>Bangor</i>	37 Birch Street, Bangor
Cutts, Cecil Jewett, Ms.	<i>Portland</i>	Φ Γ Δ House
Davis, Lillian Antoinette, Eh.	<i>Belfast</i>	Balentine Hall
Dawson, Leroy Lendon, Fy.	<i>Vergennes, Vt.</i>	25 Mill Street
Dawson, Richard Crawford, Ch. Eng.	<i>Claremont, N. H.</i>	Σ N House
Dean, Elwin Linwood, Es.	<i>Greenville Junction</i>	410 H. H. Hall
Doherty, James Rice, Me.	<i>Bangor</i>	55 Maple Street, Bangor
Dole, Francis Stone, Ch. Eng.	<i>South Brewer</i>	South Brewer
Dougherty, Joseph Roy, Fr.	<i>Bangor</i>	39 Pleasant View Street, Bangor
Doughty, Randall Hubert, Ch. Eng.	<i>Cumberland Center</i>	110 Oak Hall
Douglas, Helene Elizabeth, Eh.	<i>Brunswick</i>	Mt. Vernon House
Dow, Doris Belle, He.	<i>Atkinson</i>	180 Main Street
Downing, John Philip, Ag.	<i>Bangor</i>	70 Grove Street, Bangor
Drisko, Sewall Marsten, Fy.	<i>Harrington</i>	412 H. H. Hall
Dunton, James William, Ee.	<i>Bath</i>	Σ A E House
Dunton, Roxie Mae, He.	<i>Kingfield</i>	Balentine Hall
Eastman, Carl Burleigh, Me.	<i>West Buxton</i>	403 H. H. Hall
Edwards, Fred Blodgett, Es.	<i>Shelburne, N. H.</i>	K Σ House
Elliott, Wilmer Rogers, Ag.	<i>Patten</i>	Φ K Σ House
English, Benjamin Worth, Me.	<i>New Haven, Conn.</i>	Σ X House
Everett, Vaughn Beveridge, Ce.	<i>Fort Fairfield</i>	Φ Γ Δ House

Farrar, Frances Sarah, Ms.	<i>Princeton</i>	Balentine Hall
Field, Vena Bernadette, Eh.	<i>Vanceboro</i>	Balentine Hall
Fifield, Doris Frances, Es.	<i>Vinalhaven</i>	Balentine Hall
Fineberg, Jack, Bl.	<i>New Haven, Conn.</i>	104 H. H. Hall
Fisher, Sarah Louise, He.	<i>Fort Fairfield</i>	Balentine Hall
Fitzhenry, Raymond Chester, Fy.	<i>Lubec</i>	K Σ House
Fletcher, Mary Eva, Bl.	<i>Vanceboro</i>	
	28 Patten Street, Bangor	
Fogg, Madelene, Fr.	<i>Bangor</i>	Balentine Hall
Foster, John Robert, Ag.	<i>Roxbury, Mass.</i>	Σ X House
French, Fred Cyrus, Me.	<i>Andover</i>	102 H. H. Hall
French, William Louis, Ee.	<i>Turner</i>	B Θ Π House
Friedman, Leo, Ch. Eng.	<i>Augusta</i>	101 Oak Hall
Gerrish, Harold Lewis, Ee.	<i>Brownville</i>	Φ K Σ House
Gilley, Wendell Holmes, Es.	<i>Southwest Harbor</i>	B Θ Π House
Goldberg, David Abraham, Ch. Eng.	<i>Old Town</i>	Φ E Π House
Goldsmith, Isador Keith, Es.	<i>Orono</i>	29 Park Street
Gorden, Rachel, He.	<i>Livermore Falls</i>	Balentine Hall
Grace, John de Baptist, Ce.	<i>East Boston, Mass.</i>	412 Oak Hall
Graves, Glenwood Owen, Ch. Eng.	<i>Presque Isle</i>	109 H. H. Hall
Greenlaw, Helen Elaine, Es.	<i>Masardis</i>	R. F. D. #7, Bangor
Griffiths, Eugene Benjamin, Bl.	<i>Presque Isle</i>	409 H. H. Hall
Gross, Elroy Heyer, Fy.	<i>Waldoboro</i>	212 Oak Hall
Gruhn, George Herman, Fy.	<i>Columbus, Wis.</i>	K Σ House
Hackett, Carleton Henry, Ch. Eng.	<i>South Brewer</i>	South Brewer
Hanington, Edith Mills, Eh.	<i>Calais</i>	Balentine Hall
Hanley, Margaret Leonard, Eh.	<i>Thomaston</i>	Balentine Hall
Hardy, Oral Alton, Ag.	<i>Stillwater</i>	Stillwater
Harmon, Carl Milton, Hy.	<i>Buxton</i>	403 H. H. Hall
Harris, Mary Barrows, Bl.	<i>LaGrange</i>	Balentine Hall
Harrison, Frederick William, Es.	<i>Houlton</i>	Θ X House
Haskell, George Albert, Me.	<i>Lincoln</i>	410 H. H. Hall
Haskell, Robert Nelson, Ee.	<i>Bangor</i>	
	645 Hammond Street, Bangor	
Hastings, Donald Francis, Ee.	<i>Rockland</i>	K Σ House
Hatfield, William Barr, Bl.	<i>South Brewer</i>	Φ Γ Δ House
Higgins, Marshall Everett, Fy.	<i>Townsend, Mass.</i>	Δ X A House
Hill, Alice Rider, Hy.	<i>Orono</i>	391 College Road
Hobson, Ralph William, Ag.	<i>Portland</i>	311 Oak Hall
Holbrook, Alfred Leroy, Ag.	<i>North Anson</i>	302 Oak Hall
Horrivich, Louis, Ch. Eng.	<i>Hartford, Conn.</i>	6 Myrtle Street
Houghton, Amory McLellan, Jr., Fy.	<i>Bath</i>	A T Ω House
Houghton, Gerard Milton, Ee.	<i>Ipswich, Mass.</i>	201 H. H. Hall

Hudon, Victor Joseph, Ee.	<i>West Springfield, Mass.</i>	
		Park Street
Humphrey, Orman Julian, Ce.	<i>Bangor</i>	Φ Η Κ House
Hunnewell, Clayton Moore, Ce.	<i>Caratunk</i>	
	213 Center Street, Bangor	
Hussey, Frank Washburn, Ag.	<i>Presque Isle</i>	Φ Η Κ House
Huston, Arthur Leroy, Ee.	<i>Dover-Foxcroft</i>	Θ Χ House
Hutchings, Roland Lee, Ce.	<i>Orland</i>	54 Pine Street
Hutchinson, Edna Marie, Ps.	<i>North Dexter</i>	Balentine Hall
Hutton, John Charles, Es.	<i>Brunswick</i>	Φ Η Κ House
Hyde, Stanley Berry, Ce.	<i>Saco</i>	Κ Σ House
Irish, Clifford Virgil, Ee.	<i>Gorham</i>	409 H. H. Hall
Jacobs, David Clement, Es.	<i>Rockland, Mass.</i>	Σ Ν House
James, Ruel Leroy, Ee.	<i>Princeton</i>	301 H. H. Hall
Jeffery, David Mitchell, Ee.	<i>Dorchester, Mass.</i>	48 Pine Street
Johnson, Charles Edgar, Eh.	<i>Brownville</i>	Σ Ν House
Johnson, Maurice Burton, Me.	<i>Portland</i>	Stillwater
Jordan, Shirley Webster, Ee.	<i>Mechanic Falls</i>	Φ Η Κ House
Kaakinen, Aaro, Fy.	<i>Fitchburg, Mass.</i>	210 Oak Hall
Kelleher, George Francis, Fy.	<i>Ware, Mass.</i>	10 Summer Street
Kennard, George Harrison, Ce.	<i>West Baldwin</i>	409 Oak Hall
Kneeland, Clarence Russell, Me.	<i>Newburyport, Mass.</i>	Α Τ Ω House
Lake, Malcolm Fred, Me.	<i>Wilton</i>	Λ Χ Α House
Lambert, William Burnham, Ch. Eng.	<i>Brewer</i>	302 Oak Hall
Lamson, George Leroy, Me.	<i>Bangor</i>	
	334 Lincoln Street, Bangor	
Lancaster, Jean Emmons, Bl.	<i>Madison</i>	Φ Η Κ House
LaPlant, John Ervin, Ag.	<i>Gardiner</i>	32 Peters Street
Lawler, Elizabeth, Sp.	<i>Southwest Harbor</i>	Balentine Hall
Lawry, John Ansel, Me.	<i>Fairfield</i>	Β Θ ΙΙ House
Leighton, Cecil Victor, Ee.	<i>Woodland</i>	College Road
Lejonhud, Carl August, Me.	<i>South Portland</i>	301 H. H. Hall
Libby, Alice Maude, Eh.	<i>Vinalhaven</i>	Balentine Hall
Libby, Carl Freeman, Me.	<i>Biddeford</i>	Σ Δ Ε House
Libby, Paul Wescott, Me.	<i>Gray</i>	Σ Α Ε House
Lincoln, Frank Louis, Ce.	<i>Houlton</i>	Θ Χ House
Lineken, Elizabeth Marietta, He.	<i>Thomaston</i>	Balentine Hall
Linekin, Maynard George, Fy.	<i>Thomaston</i>	204 Oak Hall
Linscott, Paul Harding, Fy.	<i>Brownfield</i>	Β Θ ΙΙ House
Little, Guilbert Raymond, Ce.	<i>Portland</i>	25 Park Street
Littlefield, Walter Arnold, Es.	<i>Orono</i>	188 Main Street
Loomis, Mary Elizabeth, Eh.	<i>Yalesville, Conn.</i>	Balentine Hall

Lovell, Harold Irving, Es.	<i>Lynn, Mass.</i>	Δ T Δ House
Lynch, Arline Frances, Lt.	<i>Brewer</i>	Brewer
MacDougall, Julia Douglass, He.	<i>Milo</i>	Balentine Hall
McEwen, Charles Milton, Ag.	<i>Bowdoinham</i>	Σ Φ Σ House
MacGregor, Louise, Sp.	<i>Calais</i>	Balentine Hall
MacLaughlin, Marlin Vance, Ee.	<i>Brewer</i>	Σ Φ Σ House
McPhetres, Madeline Marie, Ms.	<i>Sangerville</i>	Campus
Mahoney, Kathleen Anne, Es.	<i>Biddeford</i>	Balentine Hall
Maling, Rachel Dorcas, Es.	<i>Bangor</i>	Balentine Hall
Malloy, Walter James, Fy.	<i>Gorham, N. H.</i>	Θ X House
Mangan, John William, Me.	<i>Pittsfield, Mass.</i>	203 H. H. Hall
Marquis, Solomon, Es.	<i>Dorchester, Mass.</i>	Φ E Π House
Marr, Frank Wesley, Ee.	<i>Island Falls</i>	402 H. H. Hall
Martin, Anna Elizabeth, Hy.	<i>Biddeford</i>	Balentine Hall
Mason, Daniel Whitehouse, Ce.	<i>Augusta</i>	Φ H K House
Mason, John Carlton, Fy.	<i>Island Falls</i>	Δ T Δ House
Meservie, Charles Erleand, Es.	<i>Morrill</i>	29 Main Street
Modery, Harold Kenneth, Ce.	<i>Orono</i>	87 Park Street
Moody, Charles Frederick, Fy.	<i>Saco</i>	K Σ House
Morrison, Robert Wentworth, Ce.	<i>Bangor</i>	25 Grove Street
Mossler, Dorothy Edwina, Ms.	<i>South Brewer</i>	Balentine Hall
Murphy, William John, Es.	<i>Portland</i>	402 H. H. Hall
Murray, Eleanor deWolf, He.	<i>Hampden Highlands</i>	Mt. Vernon House
Murray, Joseph Magee, Bl.	<i>Hampden Highlands</i>	Φ Γ Δ House
Muzzey, George Aldrich, Ce.	<i>South Berwick</i>	305 Oak Hall
Nealley, Kenneth Clark, Es.	<i>Winterport</i>	308 H. H. Hall
Nevels, Frederick Leroy, Ee.	<i>South Portland</i>	306 H. H. Hall
Newton, Donald McLean, Es.	<i>Newport</i>	B Θ Π House
Norwood, Hope, He.	<i>Southwest Harbor</i>	Balentine Hall
Osborne, Elwood Noyes, Ce.	<i>Fairfield</i>	201 H. H. Hall
Osborne, Mildred Eleanor, Lt.	<i>Bangor</i>	Balentine Hall
Packard, Mansfield Morton, Ee.	<i>Bryant Pond</i>	202 H. H. Hall
Page, Harriet Evangeline, Sp.	<i>Orono</i>	37 Middle Street
Parmenter, Arthur Neal, Fy.	<i>Brockton, Mass.</i>	Σ A E House
Patten, Clyde Gowell, Ee.	<i>Topsham</i>	Φ H K House
Peabody, Elizabeth Tracy, Hy.	<i>Portland</i>	Mt. Vernon House
Pendleton, Arthur Norman, Ag.	<i>Dark Harbor</i>	Φ K Σ House
Pendleton, Elizabeth Estelle, Eh.	<i>Bangor</i>	Balentine Hall
Penley, Donald Watson, Ee.	<i>Dexter</i>	201 H. H. Hall
Percival, Ethelyn Marcia, Ms.	<i>Bangor</i>	Balentine Hall



Perkins, Frances Elizabeth, He.	<i>Machias</i>	Balentine Hall
Perry, Alton Church, Ed.	<i>Randolph</i>	B Θ II House
Phillips, Charles Russell, Ee.	<i>New Bedford, Mass.</i>	109 H. H. Hall
Pickard, Morita Jessie, Fr.	<i>Bangor</i>	
	128 Somerset Street, Bangor	
Pike, Donald Harrington, Ee.	<i>Mansfield, Mass.</i>	K Σ House
Pike, Robert Smith, Ag.	<i>Cornish</i>	411 H. H. Hall
Pillsbury, Dan Abner, Ag.	<i>Rangeley</i>	Campus
Plummer, Ralph Chalmers, Fy.	<i>Bangor</i>	
	360 Center Street, Bangor	
Polakewich, Samuel Ralph, Es.	<i>Biddeford</i>	Φ E II House
Poole, Ivan Homer, Me.	<i>Vinalhaven</i>	209 Oak Hall
Powell, Donald William, Ce.	<i>Orono</i>	Φ Γ Δ House
Pressey, Harold Elbert, Eh.	<i>Bangor</i>	Φ K Σ House
Prouty, Kenneth Alton, Es.	<i>Wytopitlock</i>	Σ Φ Σ House
Purinton, Bernice Irene, Fr.	<i>Bangor</i>	Balentine Hall
Quincy, Sara Louise, He.	<i>Bridgton</i>	Balentine Hall
Rafferty, Robert William, Es.	<i>Willimantic, Conn.</i>	111 H. H. Hall
Reed, Reginald Lee, Ce.	<i>Portland</i>	Θ X House
Repscha, Albert Henry, Me.	<i>Derby</i>	Θ X House
Rich, Robert Pratt, Ch. Eng.	<i>Hingham, Mass.</i>	Δ T Δ House
Rich, William Wallace, Ch. Eng.	<i>Hingham, Mass.</i>	Δ T Δ House
Richards, Sumner Fernald, Ch. Eng.	<i>Dover-Foxcroft</i>	106 Oak Hall
Ridlon, Ernest Starr, Me.	<i>Cape Porpoise</i>	302 H. H. Hall
Ridlon, Hilton Joseph, Ch. Eng.	<i>Kezar Falls</i>	105 Oak Hall
Ring, Carl Edwin, Me.	<i>Bangor</i>	Δ T Ω House
Ringdahl, Eleanor Gertrude, Eh.	<i>New Sweden</i>	Balentine Hall
Robinson, Frank Lawrence, Ee.	<i>Princeton</i>	Δ T Δ House
Rogers, Howard LaForrest, Ce.	<i>Greenville</i>	Σ A E House
Sanborn, Doris May, Fr.	<i>Old Town</i>	Old Town
Sanborn, Harry Foresti, Ee.	<i>West Baldwin</i>	104 Oak Hall
Sawyer, Herbert Hunt, Me.	<i>Augusta</i>	408 H. H. Hall
Scannell, Walter Daniel, Ce.	<i>Worcester, Mass.</i>	
	10 Summer Street	
Schwartz, Nathan James, Ee.	<i>Portland</i>	203 Oak Hall
Scott, Ernest Burns, Ee.	<i>Gardiner</i>	Θ X House
Shaw, Alice Emelyn, Es.	<i>Caribou</i>	Balentine Hall
Shaw, Frank Everett, Fy.	<i>Milo</i>	Σ A E House
Shepherd, Francis Greenwood, Ee.	<i>Gloucester, Mass.</i>	Σ Φ Σ House
Sherburne, Lauris Norton, Fy.	<i>Newport</i>	B Θ II House
Silverman, Herman Samuel, Ee.	<i>Portland</i>	107 Oak Hall



Skillin, Alton Kane, Ch.  
 Smart, Stanislaus Joseph, Ee.  
 Smith, Carl Berdette, Ag.  
 Smith, Charles Joseph, Ch. Eng.  
 Smith, Hollis Ayer, Fy.  
 Smith, Virgil Calderwood, Me.  
 Snow, Edwin Payson, Ag.  
 Soderberg, Frederic Arnott, Ch. Eng.

Stein, Joseph Carter, Py.  
 Stowell, Hubert Kirke, Fy.  
 Sullivan, Daniel Lawrence, Fy.  
 Swett, Clyde Irving, Ch. Eng.

Tabachnick, Henry Myer, Bl.  
 Thornton, Prescott Ervin, Ag.  
 Thurston, Annie Belle, He.  
 Tibbetts, Martelle Arnold, Ce.  
 Towne, Frances Lucile, Eh.  
 Tozier, Claude Hill, Es.  
 Tracy, Clayton Allan, Ce.  
 Trouant, Donald Lynn, Ms.  
 Turner, Alden Herbert, Es.  
 Turner, Otto Chessman, Ee.  
 Twombly, Earle Cecil, Me.  
 Tyndall, Balfour Sterling, Fy.

Walker, Lynette Agnes, Eh.  
 Wallace, Helen Ernestine, Fr.  
 Wallace, Mary Elizabeth, He.  
 Ward, Margaret Rice, Eh.  
 Wardwell, Gerald Cushman, Ce.  
 Ware, Arelene Jackson, Lt.  
 Waterhouse, Mary, He.  
 Webber, Harold Clark, Ch. Eng.  
 Weeks, Ruth Adelia, He.  
 Whipple, William Herman, Ce.  
 Whited, William Joseph, Es.  
 Whiteside, Osmond Steen, Es.

Whitney, Harland Libby, Ee.  
 Whittier, Philip Page, Es.  
 Wilkins, Alden Warren, Ce.  
 Wilkinson, Ernest Leyland, Me.

*South Portland* Δ T Δ House  
*Port aux Basques, New-*  
*foundland* 32 Peters Street  
*Presque Isle* 404 H. H. Hall  
*Mexico* Δ X A House  
*Haverhill, Mass.* Φ K Σ House  
*Vinalhaven* 209 Oak Hall  
*Atkinson* 308 Oak Hall  
*Bangor*

230 Essex Street, Bangor  
*New York, N. Y.* Φ E Π House  
*Dixfield* College Road  
*Reading, Mass.* 25 Mill Street  
*Bangor* 78 First Street, Bangor

*Portland* Φ E Π House  
*Springfield* 32 Peters Street  
*South Union* Balentine Hall  
*Anson* 406 Oak Hall  
*Milo* Balentine Annex  
*Albion* A T Ω House  
*Orono* 56 Park Street  
*Augusta* Σ Φ Σ House  
*Topsham* Φ H K House  
*Livermore* B Θ Π House  
*Newburyport, Mass.* A T Ω House  
*Brockton, Mass.* Δ T Δ House

*Orono* 38 Penobscot Street  
*Biddeford* Balentine Hall  
*Orono* 166 College Road  
*Berlin, N. H.* Balentine Hall  
*Augusta* Δ T Δ House  
*Brewer* Balentine Hall  
*Biddeford* Balentine Hall  
*Randolph* Σ X House  
*Gardiner* Balentine Annex  
*Waterville* Σ N House  
*Houlton* 8 Island Avenue  
*Bangor*

224 Essex Street, Bangor  
*Gray* 404 H. H. Hall  
*Bangor* 71 Grant Street, Bangor  
*Milltown* Σ X House  
*Methuen, Mass.* Σ A E House

Wilson, Cuthbert Burns, Ee.  
Winslow, Daphne, Fr.  
Winter, Harold Lewis, Ee.  
Wixson, Charles Wesley, Ce.  
Woodard, Pearl Ruby, Fr.

*Bath* Φ Γ Δ House  
*Rockland* Balentine Hall  
*Livermore Falls* Σ Φ Σ House  
*Waterville* 304 H. H. Hall  
*Greenville Junction*

Balentine Annex

Zollo, Felice John, Bl.

*Revere, Mass.* 90 Park Street

## FRESHMEN

Abbott, Floyd Nelson, Arts  
Abramson, James, Eng.  
Acheson, George Robert, Ch.  
Albert, Willie Martin, Arts  
Aldrich, Edson Elery, Ee.  
Allen, Stanley Parsons, Ch. Eng.  
Ames, James Wesley, Arts  
Anderson, John Raymond, Fy.

*Albion* A T Ω House  
*Berlin, N. H.* Φ Ε Π House  
*Bath* 204 Oak Hall  
*Millinocket* 8 Middle Street  
*Brewer* Brewer  
*Jay* 103 H. H. Hall  
*Walpole, Mass.* Φ Η Κ House  
*Bangor*

122 Lincoln Street, Bangor

Andrews, Edith Alice, Arts  
Andrews, Ethel Maude, He.  
Andrews, Katherine Lowell, Arts  
Armstrong, Elizabeth, Arts  
Ascher, John Philip, Ee.  
Atwood, Horace Sears, Ee.  
Atwood, Paul Elliott, Fy.

*Canton* 7 Park Street  
*Stillwater* Stillwater  
*Glenmere* Balentine Hall  
*Galveston, Texas* Balentine Hall  
*New York, N. Y.* Δ Τ Δ House  
*Calais* 211 Oak Hall  
*Bangor*

123 Lincoln Street, Bangor

Babb, John Donald, Ee.  
Babb, Russell Hancock, Arts  
Bacon, Douglas MacDonald, Eng.  
Bailey, Irving Colby, Ag.  
Bailey, William Leonard, Ce.  
Baker, Gerald Franklyn, Ch. Eng.  
Barker, Elliott Eveleigh, Arts  
Barker, Fannie Morison, Arts  
Barker, Kenneth Watson, Ag.  
Barrows, Willis Manning, Ee.  
Bartlett, Durward Harold, Ee.

*Machias* 103 H. H. Hall  
*Haverhill, Mass.* Σ Α Ε House  
*Andover, Mass.* Α Τ Ω House  
*Caribou* 109 H. H. Hall  
*Malden, Mass.* Β Θ Π House  
*Bangor* 80 Wiley Street  
*Bridgewater* 311 H. H. Hall  
*East Corinth* 38 Oak Street  
*Dover-Foxcroft* Mill Street  
*Dover-Foxcroft* Σ Α Ε House  
*Thorndike*

110 Essex Street, Bangor

Baston, Chester Edwin, Ee.  
Baxter, Charles Leslie, Ce.  
Bean, Carleton Crosby, Arts

*East Millinocket* Old Town  
*Rockland, Mass.* Σ Ν House  
*Bangor*

92 Norfolk Street, Bangor

*East Otisfield* 56 Park Street

Bean, Eastman Lewis, Arts

Bean, Robert Holly, Ee.  
 Beaudette, Wilfred Arthur, Jr., Ce.  
 Beckett, Christine Esther, Arts  
 Beedle, Llewellyn Woodward, Fy.  
 Billings, Maurice Preston, Ee.

Bischoff, Carl Henry, Ce.  
 Bishop, Jay Daniel, Ee.  
 Bond, Granville MacCord, Arts

Booker, George Ansyl, Arts  
 Boothby, Margaret Foster, He.  
 Boston, Albro Roswell, Me.  
 Bowden, Hervey Francis, Arts  
 Bradeen, Effie Harris, He.  
 Brennick, Hudson Lawrence, Arts  
 Brewer, Frances Hazel, Arts  
 Brown, Dorothy Stella, Arts  
 Brown, Edwin Boynton, Fy.  
 Brown, Florington Tracy, Arts  
 Brown, Harry Clement, Arts  
 Brown, Jasper Sumner, Ch.  
 Brown, Ralph Clifton, Me.  
 Bubar, Arthur Elden, Ag.  
 Buck, Laurence Lyman, Ee.  
 Buckley, William Dennis, Arts

Bunker, Carleton Herbert, Fy.  
 Burke, James Christopher, Arts  
 Burnham, Allen, Ag.  
 Burns, Robert Irwin, Ee.  
 Burr, Alfred Rockwell, Arts  
 Burr, Maurice Holyoke, Fy.  
 Burton, Augustus Marion, Fy.  
 Buzzell, Francis Guernsey, Ag.

Cahill, George Albion, Jr., Me.  
 Carr, Philip Floyd Joseph, Ch.

Carroll, Burton Roberts, Arts  
 Casey, Lawrence King, Ce.  
 Castonguay, Raoul Joseph, Me.  
 Chandler, Frederick Barker, Ce.  
 Chaplin, Kera Joan, Arts  
 Chapman, Kenneth Cayford, Ee.

*Camden* 36 Grove Street  
*Worcester, Mass.* 29 Main Street  
*Calais* Mt. Vernon House  
*Sargentville* 411 Oak Hall  
*Southwest Harbor*

R. F. D. Bennoch Street  
*Franklin, Mass.* 56 Park Street  
*Orono* 22 Hill Street  
*Bangor* B Θ Π House

290 French Street, Bangor  
*Waterville* K Σ House

*Gorham* Balentine Hall  
*Haverhill, Mass.* 304 Oak Hall

*Brooks* 34 Pine Street  
*Dresden Mills* Balentine Hall

*Rumford* 74 Main Street  
*Bar Harbor* 47 Mill Street

*Bangor* Balentine Hall  
*North Berwick* 180 Main Street

*Northeast Harbor* 16 Grove Street  
*Lubec* 180 Main Street

*Wenham, Mass.* 32 Pierce Street  
*Portland* Θ X House

*Fort Fairfield* 8 Middle Street  
*Stillwater* Stillwater

*New London, Conn.* 7 Pleasant Street

*Brewer* Brewer  
*Springfield, Mass.* 10 Beach Street

*Wiscasset* 406 H. H. Hall  
*Bangor* 34 Ohio Street, Bangor

*Brewer* Brewer  
*Old Town* Old Town

*Corinna* Φ H K House  
*Fryeburg* 25 Mill Street

*Bath* Σ A E House  
*West Springfield, Mass.*

404 H. H. Hall  
*Lynn, Mass.* K Σ House

*Portland* 310 H. H. Hall  
*Orono* 16 Mayo Street

*Machias* 34 Pine Street  
*Cornish* Balentine Annex

*Athens* 402 H. H. Hall

Chase, Ezekiel Leith, Ce.	Brownville	Σ A E House
Chellis, Allen Morris, Ee.	Kezar Falls	110 Oak Hall
Cheney, Irvill Harry, Ag.	Brunswick	406 H. H. Hall
Clark, Lawrence Copeland, Arts	Lincoln	A T Ω House
Coakley, Roger Gerard, Me.	Beverly, Mass.	Δ T Δ House
Coburn, George Newton, Arts	Weld	Φ K Σ House
Coffin, Edgar Derrickson, Me.	Verona, N. J.	23 Pond Street
Coffin, Margaret Winona, Arts	Presque Isle	Balentine Annex
Coffin, Silas Allan, Arts	Freeport	110 H. H. Hall
Cohen, Ada, Arts	Bangor	
	50 East Summer Street, Bangor	
Collings, Donald Windsor, Ee.	Leeds	205 H. H. Hall
Comstock, Virgil Wesley, Ch. Eng.	Old Town	Old Town
Connor, Lawrence Coney, Arts	Bangor	K Σ House
Conti, Armando John, Jr., Ee.	Eastport	K Σ House
Corash, Julius Henry, Arts	Worcester, Mass.	Φ E II House
Courtney, Henry Lewis, Arts	Boston, Mass.	45 Pine Street
Crawford, Earle Dana, Ee.	Waterville	29 Bennoch Street
Creamer, Ansel Samuel, Ch. Eng.	Nobleboro	109 Oak Hall
Crediford, Leon Emery, Ag.	Shapleigh	205 Oak Hall
Crockett, Ruth Rena, Arts	Woodfords	Balentine Hall
Crozier, Harold Eugene, Me.	Brownville	Σ A E House
Curran, Laurence Edward, Ce.	Mexico	180 Main Street
Curran, Rosemary, Eh.	Rumford	Old Town
Curren, Levi Addison, Arts	Millinocket	Σ A E House
Cutting, Wallace Austin, Ce.	Andover	36 Grove Street
Cyr, Edgar Ralph, Ce.	Waterville	7 Summer Street
	Princeton	Δ T Δ House
Daggett, Hale Otis, Ee.	Brookton	180 Main Street
Dakin, Leone Mae, He.	Bangor	
Danforth, Gordon Walter, Arts	20 Seventh Street, Bangor	
Davenport, Bruce Ira, Arts	Phillips	Δ X A House
Davis, Howard Forest, Arts	Rumford	74 North Main Street
DeBeck, Sydney Sumner, Jr., Ce.	Franklin	Σ N House
Dempsey, Mary Kathleen, Arts	Houlton	36 College Road
Deraney, Fred Hanna, Arts	Portland	209 H. H. Hall
Diehl, Richard Burton, Fy.	New Britain, Conn.	303 Oak Hall
Doerr, Albert Hugo, Fy.	New Britain, Conn.	Φ H K House
Doherty, Joseph Daniel, Ch. Eng.	Bangor	55 Maple Street, Bangor
Donovan, Douglas Edward, Arts	Turners Falls, Mass.	Θ X House
Dowd, Clarence Michael, Fy.	Worcester, Mass.	Σ Φ Σ House
Drisko, Othello Luere, Ee.	Columbia	412 H. H. Hall
Dudley, Ralph Floyd, Me.	West Pembroke	23 Pond Street
Dufour, John Leo, Arts	Madawaska	A T Ω House

Dunlap, Louis Alfred, Ag.  
 Dunning, Wilhelmina Frances, Arts  
 Durgan, George Arthur, Ee.  
 Durrell, John Robert, Ce.

Eaton, Henry Boardman, II, Fy.  
 Eaton, Marion Charlotte, Arts  
 Elliott, Wallace Henry, Ag.  
 Emerson, Emma Louesa, He.  
 Emery, Cora Ellen, Arts  
 Emery, Harlan Julien, Ag.  
 Emmons, Charles Ellsworth, Ee.

Fagan, Thomas Moulton, Arts  
 Fales, Charles Lyman, Ee.  
 Falt, Gordon Haliburton, Ee.

Farquhar, John Dick, Ce.

Farrington, John Moody, Arts  
 Farrington, Pauline Rose, He.  
 Fenlason, Audrey Emma, Arts

Ferguson, William Stanley, Arts  
 Fletcher, Carlton Wentworth, Ee.  
 Foote, John, Me.

Foster, John Henry, Arts  
 Fraser, Margaret Mary, Arts  
 Fraser, Oren Foss, Ag.  
 Frye, George William, Arts

Gallison, Kathleen Elizabeth, Arts

Gammell, Ernest Osmond, Ee.  
 Gardner, Howard Merton, Me.  
 Garvin, Arthur Holland, Ch.  
 Garvin, Harry Marshman, Ch.  
 Gero, Charles Edward, Ce.  
 Getchell, Williams Bassett, Jr., Ce.  
 Giddings, Spofford, Ch. Eng.  
 Gillen, Madelene Mary, Arts  
 Ginsberg, Samuel Fine, Arts  
 Glenn, John Donald, Arts  
 Glynn, Robert Martin, Arts

*South Portland* Σ X House  
*Topsham* 80 Forest Avenue  
*Lubec* 36 Grove Street  
*Stratton* Σ N House

*Calais* Φ Γ Δ House  
*Winterport* 15 Park Street  
*Presque Isle* 311 H. H. Hall  
*Bangor* Balentine Hall  
*Bar Harbor* R. F. D. #7, Bangor  
*Salisbury Cove* Σ N House  
*Kennebunk* Σ A E House

*Portland* Σ N House  
*Wayne* Σ A E House  
*Northeast Harbor* 7 Pleasant Street

*Gilbertville, Mass.* 100 North Main Street  
*Center Lovell* Park Street  
*Brewer* Balentine Hall  
*North New Portland*

Balentine Hall  
*Wollaston, Mass.* 103 H. H. Hall  
*Bangor* 714 Main Street, Bangor  
*Sturbridge, Mass.*

7 Summer Street  
*Dorchester, Mass.* Σ X House  
*Berlin, N. H.* Balentine Annex  
*Medford, Mass.* Σ A E House  
*Farmington* 306 Oak Hall

*Bangor* 105 Larkin Street, Bangor  
*Attleboro, Mass.* 307 H. H. Hall  
*Brockton, Mass.* Θ X House  
*Portland* Φ H K House  
*Portland* Φ H K House  
*Waterville* 7 Summer Street  
*Augusta* B Θ II House  
*Augusta* B Θ II House  
*Bangor* 36 College Road  
*Old Town* Old Town  
*Caribou* 7 Pleasant Street  
*Portland* 305 H. H. Hall



Godfrey, Cecil Newton, Ce.	<i>Old Town</i>	Old Town
Goff, Lester Vernon, Ag.	<i>Hollis Center</i>	Stillwater
Gonyer, Edmund Eugene, Me.	<i>Orono</i>	17 Middle Street
Goudey, Clyde Edwin, Arts	<i>Auburn</i>	Σ N House
Graffam, Pearl Roberta, Arts	<i>Bangor</i>	Balentine Hall
Green, Nehemiah, Arts	<i>Houlton</i>	Φ E Π House
Griffin, Phyllis Gertrude, Arts	<i>Houlton</i>	36 College Road
Guernsey, Thompson Lyford, Arts	<i>Dover-Foxcroft</i>	Φ K Σ House
Haley, Francis Nelson, Eng.	<i>Lynn, Mass.</i>	Σ X House
Hall, Everard Eugene, Fy.	<i>Clinton</i>	Φ H K House
Hall, Milton Franklin, Fy.	<i>Kennebunk</i>	36 Grove Street
Hall, Nelson Blanchard, Arts	<i>Kennebunk</i>	Δ T Ω House
Ham, Cecile Elizabeth, Arts	<i>Houlton</i>	15 Oak Street
Hamer, Harry Northin, Fy.	<i>Methuen, Mass.</i>	302 H. H. Hall
Hamilton, John Murray, Arts	<i>Atlantic, Mass.</i>	Δ T Δ House
Hamor, Elihu Thomas, Ee.	<i>Northeast Harbor</i>	Φ K Σ House
Hammer, Alfred Welles, Jr., Ch. Eng.	<i>Wethersfield, Conn.</i>	30 Mill Street
Hart, Clarence Eugene, Ce.	<i>Orono</i>	123 Main Street
Harvey, Helen Hunt, Arts	<i>Fort Fairfield</i>	Mt. Vernon House
Haskell, Ida Mae, Arts	<i>Lincoln</i>	R. F. D. #7, Bangor
Hatch, Loranus Pendleton, Ce.	<i>Dark Harbor</i>	Δ X A House
Hayes, Allen Milliken, Arts	<i>North Berwick</i>	
Heistad, Trygve, Ce.	269 State Street, Bangor	
Herchman, George Joseph, Arts	<i>Rockport</i>	College Road
Higgins, Dennis Isadore, Ee.	<i>Hartford, Conn.</i>	College Road
Higgins, Ernest Harold, Arts	<i>Dexter</i>	49 Broadway
Hillman, Arthur Sewall, Ee.	<i>Meriden, Conn.</i>	23 Pond Street
Hilton, Lawrence Theara, Arts	<i>Island Falls</i>	Φ H K House
Holt, Agnes Eleanor, He.	<i>Portland</i>	B Θ Π House
Hunt, Kathleen Joyce, Arts	<i>Winter Harbor</i>	20 Mill Street
Huntley, Hugh Bentley, Ce.	<i>Woodfords</i>	Balentine Hall
Hurd, Mark Alma, Ag.	<i>Bangor</i>	185 Center Street, Bangor
Hussey, Harold Albert, Ch. Eng.	<i>Pittsfield</i>	Φ K Σ House
Hutchins, Robert Johnson, Ch.	<i>Woolwich</i>	310 Oak Hall
	<i>Bangor</i>	245 Pine Street, Bangor
Ingalls, Ralph Clark, Ee.	<i>Machias</i>	34 Pine Street
Innes, Edith Blanche, Arts	<i>Hall Quarry</i>	47 Mill Street
Jackson, Ralph Christa, Me.	<i>Portland</i>	Δ X A House
James, Wilson Goucher, Arts	<i>Bangor</i>	
Jenkins, Stephen Waters, Fy.	23 McKinley Street, Bangor	
	<i>Danvers, Mass.</i>	211 H. H. Hall



Johnson, Hadley, Ee.  
 Johnson, Mervin Twitchell, Ce.  
 Johnson, Reginald Foss, Fy.  
 Jones, Clyde Percival, Arts  
 Jones, Eva Celia, Arts  
 Jordan, Bryce Meredith, Ag.

Kane, Maurice Ward, Arts  
 Keen, Louis Burbank, Ce.  
 Keene, Alton Percy, Me.  
 Kelley, Arthur Johnson, Ce.

Kelley, Irving Barstow, Me.  
 Kelsey, Lawrence John, Ee.  
 Kenison, Lewis Everett, Me.  
 Keyes, Joseph Fred, Ch.  
 Kittredge, Murray Kent, Arts  
 Knightly, Warren Francis, Ag.  
 Knowles, Bernard Daniel, Fy.  
 Kolouch, Joseph Frederic, Ch. Eng.

Ladner, George Ora, Ce.  
 Lane, Charles Valentine, Ag.  
 Larkin, Mary Loretto, Arts  
 Larrabee, John Kenneth, Arts  
 Laskey, Joseph Stephen, Arts  
 Laughlin, Elizabeth Helen, Arts  
 Lebet, Louis David, Ch. Eng.  
 Leman, Ruth, He.  
 Lerette, Irene Mary, Arts  
 Leveille, Virgil Roland, Ch. Eng.  
 Levi, Samuel Jacob, Ee.  
 Lewis, Floyd Knight, Ee.  
 Libby, George Thompson, Ch.  
 Libby, Helen Collins, Arts  
 Lindsey, Marion Florence, Arts  
 Lipsit, Moise, Arts  
 Littlefield, Fred Elmer, Me.  
 Littlefield, George Trowbridge, Ce.  
 Lord, Marion Elizabeth, Arts  
 Lucas, Wesley Elmore, Arts  
 Lunt, Everett Manson, Ee.

*Pittsfield* Φ H K House  
*New Britain, Conn.* Φ H K House  
*Hancock* K Σ House  
*Bangor* Earle Avenue, Bangor  
*Unity* 36 College Road  
*Cape Elizabeth* Σ N House

*Bangor* 186 Ohio Street, Bangor  
*Malden, Mass.* Φ Γ Δ House  
*Skinner* Σ N House  
*Jonesport*

706 Broadway, Bangor

*Orono* 5 Bennoch Street  
*Newcastle* 207 Oak Hall  
*Calais* 303 H. H. Hall  
*Bucksport* 9 Peters Street  
*Milo* 56 Park Street  
*Norway* 112 H. H. Hall  
*North New Portland* K Σ House  
*New Bedford, Mass.*  
 180 Main Street

*Orono* Park Street  
*Red Beach* Stillwater  
*Washburn* 24 Mill Street  
*Kennebunk* 36 Grove Street  
*New London, Conn.* A T Ω House  
*Portland* 47 Mill Street  
*Bradford, Mass.* 36 Grove Street  
*Liberty* Balentine Hall  
*Hallowell* 55 Bennoch Street  
*Bangor* 107 Maple Street, Bangor  
*Portland* 103 Oak Hall  
*North Berwick* 301 H. H. Hall  
*Augusta* 408 H. H. Hall  
*Scarboro* 60 Park Street  
*North Orrington* Balentine Hall  
*Bronx, N. Y.* 67 Main Street  
*Brewer* Φ K Σ House  
*Newburyport, Mass.* A T Ω House  
*Kezar Falls* Balentine Hall  
*Portland* Θ X House  
*Dover-Foxcroft* 25 Mill Street

McCann, Everett Francis, Arts	<i>East Millinocket</i>	68 Pine Street
MacCracken, Jack Allan, Ee.	<i>Calais</i>	307 Oak Hall
McDonald, Gordon Southworth, Ce.	<i>Portland</i>	101 H. H. Hall
McFadden, Kenneth Ethelbert, Fy.	<i>Wiscasset</i>	23 Pond Street
McFarland, Elmer Franklin, Ee.	<i>Bath</i>	Φ Γ Δ House
McGarry, Leslie Gordon, Me.	<i>Bangor</i>	275 Center Street, Bangor
MacGregor, Clarence Albert, Fy.	<i>Calais</i>	307 Oak Hall
McKenney, Harold Elmer, Arts	<i>Milford</i>	Milford
MacLaughlin, Christine Marie, Arts	<i>Bangor</i>	74 James Street, Bangor
McManus, Harry Christopher, Arts	<i>Washburn</i>	Estabrooke Hall
McPhee, Howard Sheridan, Ee.	<i>Bath</i>	48 Pine Street
MacPherson, Ralph Alexander, Fy.	<i>Presque Isle</i>	311 H. H. Hall
Mack, Walter Corydon, Ce.	<i>Sanford</i>	108 Oak Hall
Madden, Clarence Edwin, Jr., Ch. Eng.	<i>Augusta</i>	Δ T Δ House
Magill, Eugene Stanley, Fy.	<i>Caribou</i>	302 H. H. Hall
Maher, Theodore James, Ee.	<i>Bangor</i>	59 Highland Avenue, Bangor
Manning, Harold Patrick, Arts	<i>Northampton, Mass.</i>	103 H. H. Hall
Marr, Caroline Jean, Arts	<i>Fall River, Mass.</i>	83 Park Street
Marshall, John Taylor, Ag.	<i>Portland</i>	Φ Η Κ House
Martin, Warren Reginald, Ee.	<i>Randolph</i>	B Θ Π House
Mayhew, Frederic Towne, Me.	<i>Walpole, Mass.</i>	23 Park Street
Mayo, Helen Natalie, Arts	<i>Cheboygan, Mich.</i>	Balentine Hall
Merrill, Hilda Frances, He.	<i>Bluehill</i>	Balentine Hall
Merrill, Richard Wilder, Arts	<i>Old Town</i>	Old Town
Merritt, Florence Arletta, Arts	<i>So. Portland</i>	48 Mill Street
Milan, Mary Eleanor, He.	<i>Bangor</i>	133 Second Street, Bangor
Miles, Elliott Raymond, Ee.	<i>Calais</i>	303 H. H. Hall
Milliken, Harold Edward, Ce.	<i>Portland</i>	303 Oak Hall
Mishou, Frank Robert, Ee.	<i>Houlton</i>	Old Town
Mitchell, Donald Davis, Ce.	<i>Lynn, Mass.</i>	Φ Γ Δ House
Moakley, Richard Elliott, Ee.	<i>Lexington, Mass.</i>	134 College Road
Moody, Delbert Leonard, Ee.	<i>Waldoboro</i>	10 Mill Street
Morancy, Clarence Edward, Ch.	<i>Gardiner</i>	310 H. H. Hall
Morrison, Franck Plaisted, Ee.	<i>Bangor</i>	26 Kenduskeag Avenue, Bangor
Morrison, Olin Crafts, Ee.	<i>Haverhill, Mass.</i>	36 Grove Street
Morse, Ruth Esther, Arts	<i>Orono</i>	51 North Main Street
Morse, Walter Priest, Ee.	<i>Lexington, Mass.</i>	Δ T Δ House
Mower, George Richardson, Ag.	<i>Bangor</i>	College Road
Murch, John Arthur, Ee.	<i>Deer Isle</i>	54 Pine Street

Myatt, Charles Oliver, Ch. Eng.	Portland	23 Pond Street
Myers, Marjorie Audrey, Arts	Orono	18 Forest Avenue
Nelson, Richard Wainwright, Arts	Boothbay Harbor	K Σ House
Newcomb, Bernard Arlin, Ch.	Great Works	Great Work
Newcomb, Dorothy, Arts	Presque Isle	Balentine Hall
Newhall, Fred Clarke, Ee.	Lexington, Mass.	Φ Γ Δ House
Newman, Walter Donald, Arts	Brownville Junction	9 Peters Street
Nickerson, Thomas Buck, Arts	Bridgewater	109 H. H. Hall
Norton, Lester Linwood, Ee.	Cornish	409 Oak Hall
Noyes, Robert Haskell, Ee.	Orono	60 Forest Avenue
O'Connell, Kenneth Edward, Me.	Bangor	193 West Broadway, Bangor
O'Connor, Margaret Isabelle, Arts	Bangor	30 Otis Street, Bangor
Olsson, Albert Hilmer, Me.	Litchfield, Conn.	32 Pierce Street
Osgood, Beulah Elizabeth, He.	Orono	134 College Road
Osgood, Charlotte Louise, He.	Orono	134 College Road
Pannoni, Anthony John, Ce.	Fall River, Mass.	32 Pierce Street
Paquette, Richard Beaumont, Ch. Eng.	Portland	23 Pond Street
Parkman, Ralph Rowe, Ee.	Hartland	56 Park Street
Parsons, Delmont, Ee.	Portland	Σ X House
Parsons, Frederick Henry, Me.	Franklin Park, Mass.	Δ T Δ House
Passmore, Clarence Kimball, Ee.	Bangor	Δ T Δ House
Patterson, Arthur Donald, Arts	Vinalhaven	K Σ House
Patterson, Harry Alfred, Arts	Boston, Mass.	Σ X House
Paul, Hugh Carl, Arts	Island Falls	Θ X House
Payson, Osborne Lord, Ag.	Brooks	324 Essex Street, Bangor
Peabody, Arvilla Drew, He.	Portland	Mt. Vernon House
Pendleton, Robert Elbridge, Ee.	Islesboro	Φ K Σ House
Pendleton, Roger Alford, Ee.	Islesboro	23 Park Street
Perkins, Edith Alma, Arts	Hallowell	Balentine Hall
Perkins, Maurice Augustus, Jr., Ee.	Machias	34 Pine Street
Perry, William Clifford, Me.	Bangor	25 Grove Street, Bangor
Peterson, Sidney Botolph, Ee.	Brighton, Mass.	Δ T Δ House
Pettengill, Herbert Donham, Arts	Island Falls	Θ X House
Pickard, Frederick Valentine, Arts	Calais	36 Grove Street
Pierce, Israel Gardner, Ee.	Augusta	Θ X House
Pike, Joseph Bennett, Ag.	Bridgton	Bennoch Street
Plate, William Bernhard, Ce.	Brooklyn, N. Y.	Σ N House
Plumer, Kenneth Osmon, Ee.	Woodfords	Σ X House

Poor, Sylvester Levi, Ce.	Augusta	Θ X House
Prescher, Adolph Rexroth, Arts	Plantville, Conn.	Σ X House
Price, Franklin Thomas, Ee.	Bangor	
	157 Forest Avenue, Bangor	
Priest, Hubert Eugene, Arts	Brunswick	Φ H K House
Pulsifer, Henry Waterman, Ag.	Mechanic Falls	134 College Road
Raichlen, Samuel, Arts	Bangor	64 Boyd Street, Bangor
Ray, Theda Adelaide, He.	Auburn	60 Park Street
Reed, Elmer Merrill, Ch. Eng.	Camden	36 Grove Street
Reed, Lewis Hersey, Ee.	Springfield	Σ N House
Reynolds, Nathan Oliver, Jr., Arts	Portland	Δ T Δ House
Rhoda, Madeleine Stimson, Arts	Houlton	Balentine Hall
Richardson, Madolyn Estelle, He.	Mars Hill	R. F. D. #7, Bangor
Rideout, Owen Wilson, Ch. Eng.	South Berwick	411 H. H. Hall
Ripley, Kenneth Tabor, Arts	Boston, Mass.	
	7 Pleasant Street	
Roberts, Shirley Janet, He.	Portland	Balentine Hall
Robinson, Davis Billings, Ee.	Manset	55 Park Street
Roche, Mary Mullen, Arts	Portland	33 Bennoch Street
Rogers, Hallowell Reynolds, Ch. Eng.	Bath	202 Oak Hall
Roland, Thomas, Jr., Arts	Nahant, Mass.	Φ Γ Δ House
Rollins, Willis Rich, Arts	Bangor	
	76 Summer Street, Bangor	
Ross, Ellsworth Lincoln, Ce.	Portland	Δ T Δ House
Ross, Stanley Willard, Arts	Columbia Falls	K Σ House
Rowe, Philip Allison, Arts	Haverhill, Mass.	Φ K Σ House
Rowe, Theodore Spurling, Me.	Brewer	Brewer
Rush, James Arnold, Ce.	Millinocket	208 Oak Hall
Russell, Melvin Raymond, Arts	St. Stephen, N. B.	23 Park Street
Ryder, Richard Earl, Ag.	Caribou	311 H. H. Hall
	Orono	72 Penobscot Street
Ramways, Mary Isabel, Arts	Standish	College Road
Ranborn, Leon Melville, Ee.	Drew	Balentine Hall
Rargent, Anna Leslie, Arts	Brewer	Brewer
Raulsbury, Laforest Stephen, Me.	Lubec	310 H. H. Hall
Randers, Don Hubert, Arts	Bangor	241 State Street, Bangor
Rawyer, Simear Ferris, Arts	Newcastle	211 Oak Hall
Roeder, John Kenneth, Fy.	Deer Isle	54 Pine Street
Rott, Arnold Francis, Ee.	Albion	8 Island Avenue
Ranett, Lincoln Asher, Arts	Kennebunk	20 Grove Street
Roverance, Fred Herbert, Ee.	Rumford	Δ X Δ House
Rosa, Leon Hammel, Me.	Rockland	Φ K Σ House
Rorer, Charles Albert, Me.		

Shorey, Doris Ida, Arts	<i>Dover-Foxcroft</i>	Balentine Hall
Shur, Barnett Israel, Arts	<i>Portland</i>	209 H. H. Hall
Siegel, Benjamin, Ee.	<i>Portland</i>	103 Oak Hall
Simon, Joseph Charles, Ce.	<i>Millinocket</i>	111 Oak Hall
Skillings, Clarence Edmund, Ee.	<i>Dover-Foxcroft</i>	405 Oak Hall
Small, Andrew Jordan, Arts	<i>South Portland</i>	Σ X House
Small, Howard Houghton, Fy.	<i>Portland</i>	Stillwater
Smith, Benjamin William, Fy.	<i>Islesboro</i>	23 Park Street
Snell, John Alden, Ag.	<i>Portland</i>	29 Bennoch Street
Snow, Aubrey Hamilton, Ee.	<i>Atkinson</i>	310 Oak Hall
Snow, Oliver Russell, Fy.	<i>Northeast Carry</i>	56 Park Street
Somers, Vernon Howe, Fy.	<i>Bangor</i>	89 Howard Street, Bangor
Spaulding, Melvin Arthur, Ag.	<i>Strong</i>	134 College Road
Sprague, Darrell Wallace, Ch. Eng.	<i>Corinna</i>	42 Oak Street
Sprague, Muriel Florence, Arts	<i>Corinna</i>	42 Oak Street
Sproule, Helen Marie, He.	<i>Newport</i>	36 College Road
Standish, Myles Hodsdon, Fy.	<i>Gardiner</i>	Θ X House
Stanton, Edward Fuller, Ce.	<i>Hartford, Conn.</i>	B Θ Π House
Staples, Arthur Justin, Me.	<i>Washburn</i>	Estabrooke Hall
Stearns, George Horatio, Ag.	<i>Lovell</i>	Park Street
Stein, Nathan Edward, Arts	<i>New York, N. Y.</i>	Φ Ε Π House
Stevens, Alfred Fletcher, Ee.	<i>Oakland</i>	101 H. H. Hall
Stevens, Nelson Roger, Ag.	<i>Strong</i>	134 College Road
Stevenson, Clifford Elden, Arts	<i>Bangor</i>	353 Ohio Street, Bangor
Stevenson, James Shirley, Me.	<i>Rumford</i>	411 H. H. Hall
Steward, Evangeline, He.	<i>St. Johnsbury, Vt.</i>	Balentine Hall
Stewart, Robert Chevelier, Fy.	<i>Dorchester, Mass.</i>	29 Spencer Street
Stilphen, Norman Edgar, Me.	<i>Sanford</i>	108 Oak Hall
Stimson, Lawrence Edward, Ee.	<i>Oakland</i>	101 H. H. Hall
Stone, Roger Besson, Arts	<i>Swampscott, Mass.</i>	K Σ House
Stover, Clyde Norton, Me.	<i>York Beach</i>	A T Ω House
Street, Malcolm Millidge, Me.	<i>Bangor</i>	R. F. D. #4, Ohio Street, Bangor
Sweatt, John Henry, Me.	<i>Andover</i>	Φ H K House
Sweetser, Merrill Willis, Ch. Eng.	<i>Milo</i>	103 Oak Hall
Sylvester, Arthur Clayton, Ag.	<i>Mars Hill</i>	K Σ House
Tapley, Emery Wasson, Me.	<i>West Brooksville</i>	College Road
Tate, Robert Austin, Ag.	<i>East Corinth</i>	Φ H K House
Taylor, Charles Everett, Ag.	<i>Verona, N. J.</i>	30 Mill Street
Teed, Kenneth Ralph, Arts	<i>Haverhill, Mass.</i>	304 Oak Hall
Thompson, Esther Louise, Arts	<i>Bangor</i>	Mt. Vernon House
Thompson, George Lemar, Me.	<i>Asbury Park, N. J.</i>	Λ X A House



Thurston, Laurence Guy, Ch. Eng.	<i>Rumford</i>	102 H. H. Hall
Tibbetts, Hugh Scott, Ag.	<i>Vanceboro</i>	110 H. H. Hall
Townsend, Newell Francis, Ag.	<i>Brownville</i>	112 Oak Hall
Traverse, Alfred John, Me.	<i>Boston, Mass.</i>	Θ X House
True, William Henry, Jr., Ag.	<i>Portland</i>	16 Pine Street
Turner, Robert Edgar, Fy.	<i>Walpole, Mass.</i>	23 Park Street
Tyler, Frances Collerd, Arts	<i>Gorham</i>	R. F. D. #7, Bangor
Varnum, Muriel L'Vesta, Arts	<i>Alexander</i>	Balentine Annex
Visconti, Joseph Anthony, Me.	<i>Milford, Mass.</i>	Δ T Δ House
Waite, Eleanore Frances, He.	<i>Livermore Falls</i>	Balentine Hall
Walker, Owen Alford, Arts	<i>Sebago Lake</i>	College Road
Wallerstein, Harry, Arts	<i>Brooklyn, N. Y.</i>	104 H. H. Hall
Walsh, Stewart Edward, Ch. Eng.	<i>Bangor</i>	31 Sidney Street, Bangor
Ward, Charles Francis, Ce.	<i>Kennebunk</i>	Σ N House
Washburn, Mamie Arlene, He.	<i>Presque Isle</i>	Balentine Annex
Waterhouse, Edwin Cooper, Arts	<i>Old Town</i>	Old Town
Watson, Paul Edwin, Ee.	<i>Bangor</i>	40 Everett Street, Bangor
Weatherbee, Francis Eugene, Fy.	<i>Lincoln</i>	304 H. H. Hall
Weatherbee, Robert Bryan, Fy.	<i>Lee</i>	Σ Φ Σ House
Wentworth, Lester Ricker, Ch.	<i>Calais</i>	College Road
Wheeler, Gerald Silas, Fy.	<i>Bangor</i>	114 Sanford Street, Bangor
Whitcomb, Karl Beecher, Ce.	<i>Orono</i>	College Road
Whitcomb, Seth Ashley, Ce.	<i>Readfield</i>	Old Town
White, Donald Moran, Ee.	<i>Harrington</i>	306 Oak Hall
Whitmore, Avery Heath, Ee.	<i>Bangor</i>	124 Jackson Street, Bangor
Whitmore, Ralph Ervin, Ee.	<i>Bangor</i>	124 Jackson Street, Bangor
Wilder, Frances Isabel, He.	<i>Calais</i>	Balentine Annex
Vilkins, Austin Horatio, Fy.	<i>Hartland</i>	College Road
Villetts, Frances Mae, Arts	<i>Bangor</i>	Mt. Vernon House
Villis, Kleba Leslie, Ee.	<i>Harmony</i>	8 Island Avenue
Vilson, Earl Jacob, Fy.	<i>Winterport</i>	11 Mill Street
Vilson, William Sumner, Ee.	<i>Bucksport</i>	Brewer
Viner, Samuel, Jr., Arts	<i>Roxbury, Mass.</i>	Φ E II House
Ving, Gerald Everett, Fy.	<i>Flagstaff</i>	Σ A E House
Vitham, George Lawrence, Ch. Eng.	<i>Howland</i>	29 Bennoch Street
Vood, Jessie Hammill, Ch.	<i>Seymour, Conn.</i>	36 College Road
Voodard, Ardis Josephine, Arts	<i>Greenville Junction</i>	Balentine Annex



Woodard, Clinton Albert, Ee.	<i>Bingham</i>	Φ K Σ House
Wyman, Oscar Lewis, Ag.	<i>Rumford</i>	74 North Main Street

## SPECIAL STUDENTS

Ayer, Milton Stanley, Ht.	<i>Yarmouth</i>	56 Park Street
Babb, Myron Francis, Ag.	<i>South Paris</i>	25 Grove Street
Baker, Anne Kathleen, Fr.	<i>Orono</i>	29 Pierce Street
Blake, Abigail Kincaid, Bl.	<i>Orono</i>	38 North Main Street
Chatto, Morris Haskell, Me.	<i>South Brooksville</i>	23 Park Street
Clare, Cora Mae, Arts	<i>St. Francis</i>	Balentine Hall
Davis, James Elton, Fy.	<i>North Conway, N. H.</i>	Σ A E House
Davis, William John, Fy.	<i>Brewer</i>	Brewer
Dressel, Donald Burton, Fy.	<i>Bangor</i>	25 Mill Street
Erskine, Paul Franklyn, Me.	<i>Orono</i>	5 Peters Street
Farrington, Charles Raymond, Fy.	<i>Dryden</i>	Λ X A House
Felker, Everett Joshua, Ed.	<i>Orono</i>	5 Forest Avenue
Frazier, Harry John, Es.	<i>Worcester, Mass.</i>	Δ T Δ House
Gustin, Edith Buck, Hy.	<i>Orono</i>	33 Main Street
Hamlet, Robert Crosby, Arts	<i>Bowdoinham</i>	B Θ II House
Johnson, Marjorie Edna, Arts	<i>Bailey Island</i>	Balentine Hall
Kelly, Hilda Helen, Arts	<i>Orono</i>	20 Mill Street
Lawrie, Christabel Finley, Arts	<i>Orono</i>	167 Mill Street
Macdonald, Harry Eugene, Jr.	<i>Bangor</i>	259 State Street, Bangor
McCobb, John Lombard, Ce.	<i>Orono</i>	36 Grove Street
Merrow, Ralph Clifford, Ph.	<i>Saco</i>	A T Ω House
Miller, Ira Lyman, Fy.	<i>Bangor</i>	5 Dunning Boulevard, Bangor
Muir, William Francis, Ee.	<i>Portland</i>	211 H. H. Hall
Mullin, LeRoy Allen, Ee.	<i>Cape Elizabeth</i>	101 Oak Hall
Noyes, Gordon Max, Fy.	<i>Norway</i>	39 Mill Street
Richardson, Harrison Lambert, Ag.	<i>Orono</i>	34 Middle Street
Shapiro, Max Gerald, Fy.	<i>Newport</i>	87 North Main Street
Shapleigh, David Miller, Ch. Eng.	<i>West Lebanon</i>	36 Grove Street
Sherwood, Jennie Mae, Hy.	<i>Orono</i>	Myrtle Street

Smart, Edgar Solomon, Fy.	<i>Winterport</i>	80 Mill Street
Spencer, Ralph Franklin, Ce.	<i>Old Town</i>	Old Town
Stewart, Raymond Oliver, Ch.	<i>Farmington</i>	55 Bennoch Street
Switzer, Karl Frederick, Fy.	<i>Machias</i>	Φ Γ Δ House
Taam, Wing Ip, Ch.	<i>Orono</i>	29 Bennoch Street
Tobey, Elmer Robert, Arts	<i>Orono</i>	5 Pond Street
Twitchell, Edythe Gertrude, Ed.	<i>Old Town</i>	Old Town
Uong, Diong Dick, Ch. Eng.	<i>Foochow, China</i>	23 Pond Street
Wallace, Ralph Malcolm, Arts	<i>Stoughton, Mass.</i>	Δ X A House
Whitcomb, Charles Floyd, Fr.	<i>Orono</i>	University Inn
Whitney, Sprague Rufus, Fy.	<i>Framingham Center, Mass.</i>	100 North Main Street
Wilde, Herman Emil, Ch.	<i>Lawrence, Mass.</i>	52 Penobscot Street
Wilson, Kenneth Cony, Ag.	<i>Augusta</i>	71 Center Street, Bangor
Wu, Tso Ming, Ch. Eng.	<i>Ho Haien, China</i>	74 North Main Street

## SCHOOL COURSE IN AGRICULTURE

## SECOND YEAR

Bernard, George Joseph	<i>Orono</i>	R. F. D., Bennoch Street
Bernard, William James	<i>Sanford</i>	R. F. D., Bennoch Street
Carter, Oscar Miles	<i>Orono</i>	100 North Main Street
Conant, Earle Raymond	<i>Rockland</i>	304 H. H. Hall
Goff, William True	<i>Orono</i>	College Road
Ingraham, Owen Bryan	<i>Orono</i>	100 North Main Street
Logan, Albert C.	<i>Houlton</i>	23 Grove Street
Stone, Raymond Averill	<i>Fort Fairfield</i>	205 Oak Hall
Tucker, Harold Edward	<i>Pembroke</i>	84 Park Street
Wilson, Henry Charles	<i>Portland</i>	25 Grove Street

## FIRST YEAR

Ames, Ray Chester	<i>Abbott Village</i>	227 Main Street
Colby, Allen Knowles	<i>Liberty</i>	R. F. D., Bennoch Street
Curtis, Merton Shaw	<i>Paris</i>	54 Pine Street
Day, Robert Whitehouse	<i>West Kennebunk</i>	25 Grove Street
Garland, Mansell Rowe	<i>Ellsworth Falls</i>	74 North Main Street
Hammond, Charles Henry	<i>South Paris</i>	54 Pine Street

McEndy, Edmund	<i>Linwood, Mass.</i>	111 H. H. Hall
Martin, Leo Forest	<i>Old Town</i>	Old Town
Mayo, Harry Alden	<i>Strong</i>	34 Pine Street

## SUMMER TERM

Alward, Harry Allen	<i>Bangor</i>
Anderson, Edith	<i>Washington, D. C.</i>
Anderson, Irene Norbeck	<i>Caribou</i>
Avery, Olive Mae	<i>Old Town</i>
Arsenault, Arthur Joseph	<i>Westbrook</i>
Bailey, William Gilmore, Jr.	<i>Harmony</i>
Baker, Dorothy Elizabeth	<i>Steuben</i>
Baldwin, Sherman	<i>Brookline, Mass.</i>
Bangs, Hilda	<i>Orono</i>
Banks, Curtis Forbush	<i>Westboro, Mass.</i>
Barber, Arthur Leslie	<i>Boston, Mass.</i>
Barry, James Edward, B.A. Maine, 1916	<i>Bangor</i>
Bartlett, Edmund Hobart	<i>Orono</i>
Barton, Lawrence Price	<i>Topsham</i>
Beacom, Ora Charlene	<i>Presque Isle</i>
Beck, Joseph Thomas, B.A. Maine, 1919	<i>Augusta</i>
Beckett, Clarence Bertram	<i>Calais</i>
Bellmore, Roger Vassar	<i>Plattsburg, N. Y.</i>
Bent, Robert McKinley	<i>Lynn, Mass.</i>
Bernard, George Joseph	<i>Orono</i>
Bernard, William James	<i>Sanford</i>
Berry, Elizabeth	<i>Rochester, N. H.</i>
Besse, Arline Day	<i>Albion</i>
Bishop, Jay Daniel	<i>Kingman</i>
Blackwood, Harold Frank	<i>West Pembroke</i>
Blake, Kenneth Davidson	<i>Bradford, Vt.</i>
Bonhard, Mabel Wood, A.B. Syracuse, 1892; A.M., 1895	<i>New York, N. Y.</i>
Booth, Howard Mason	<i>Worcester, Mass.</i>
Booth, John Dibble	<i>Danbury, Conn.</i>
Boynton, Henry Stanwood	<i>Sullivan</i>
Bradbury, Philip Whitney	<i>East Brownfield</i>
Bragg, Marion Katharyn, B.A. Maine, 1921	<i>Bangor</i>
Bunker, Alice Maude	<i>Bangor</i>
Broe, James Augustine, Jr.	<i>Portland</i>

Burrill, Richard Odiorne	<i>Brewer</i>
Burton, Augustus Marion	<i>Corinna</i>
Bussell, Dorothea Mabel, B.A. Maine, 1920; M.A., 1921	<i>Old Town</i>
Campbell, Morton Alfred, B.S. Boston, 1900	<i>Townsend, Mass.</i>
Carr, Helen Myrtice	<i>Plymouth, N. H.</i>
Carter, James Franklin, B.S. Bowdoin, 1917	<i>Mapleton</i>
Carter, Oscar Miles	<i>Lynn, Mass.</i>
Chandler, Florence Libby, B.S. Maine, 1920	<i>Orono</i>
Chaplin, Joseph Benjamin, B.S. Maine, 1921	<i>Houlton</i>
Chapman, Kenneth Cayford	<i>Athens</i>
Chase, Harold Jasper	<i>Portland</i>
Chasman, Dorothy Kohn, B.S. College of Industrial Arts, 1920	<i>Orono</i>
Christophe, Kenneth	<i>Manchester, N. H.</i>
Chuang, Chan Kong, B.S. Chicago, 1921	<i>Fukien, China</i>
Chung, Henry	<i>Hong Kong, China</i>
Cole, Frances Flora	<i>Stillwater</i>
Colbath, Virginia Lee	<i>Mars Hill</i>
Conley, John Benedict	<i>Portland</i>
Covey, Eugene Leslie	<i>Ellsworth</i>
Creighton, John Turner	<i>Thomaston</i>
Crowley, James Harold	<i>Wyetopitlock</i>
Curtis, Glenna Frances	<i>Manchester, N. H.</i>
Daigle, Elizabeth Lucy	<i>Fort Kent Mills</i>
Dawson, Leroy London	<i>Vergennes, Vt.</i>
Dennett, Winburn Albert, B.S. Maine, 1918	<i>Hopedale, Mass.</i>
Doane, Nell Louise	<i>Laconia, N. H.</i>
Dobbins, Frank Parker	<i>Farmington</i>
Dresser, Ruth Clement	<i>Cooper</i>
Drew, Vera	<i>Wilton</i>
Driscoll, Vera Evelyn	<i>Livermore Falls</i>
Duffy, Ralph Edward	<i>Worcester, Mass.</i>
Dunlap, Clarence Joel, B.S. Maine, 1912	<i>Kingfield</i>
Dyer, Florence Elizabeth	<i>Harrington</i>
Eaton, Henry Boardman, II	<i>Calais</i>
Elden, Nellie Mary	<i>Charleston</i>

Elias, Fred Joseph	<i>Bangor</i>
Ellsworth, Vivian Margaret, A.B. Colby, 1915	<i>Farmington</i>
Erskine, Paul Franklyn	<i>Orono</i>
Everit, Arthur Mansfield	<i>New Haven, Conn.</i>
Eye, Ralph Farnham	<i>Bangor</i>
Fagan, Thomas Moulton	<i>Portland</i>
Field, Annie Ruth	<i>Ellsworth</i>
Findlen, Marguerite Helen, A.B. Bates, 1921	<i>Fort Fairfield</i>
Finley, Raymond Stevens	<i>Augusta</i>
Firman, Harold Sidney	<i>Glen Ridge, N. J.</i>
Fogg, Raymond Gridley	<i>Skowhegan</i>
Fortier, Harry Earl, A.B. Bates, 1904	<i>Springfield</i>
Foster, Adelaide	<i>Lakeside</i>
Frellick, Elizabeth Lincoln, A.B. Mount Holyoke, 1920	<i>Peak Island</i>
French, Georgina Gould, B.A. Bates, 1893	<i>Livermore Falls</i>
Frost, Eva May	<i>Bangor</i>
Frost, Marion Holt	<i>Bethel</i>
Getchell, Philip Eugene	<i>East Machias</i>
Getchell, Ralph Augustus	<i>Portland</i>
Goff, Robert Fiske	<i>Portland</i>
Goff, William True	<i>Orono</i>
Gonzales, Harold Francis	<i>Hall Quarry</i>
Goodhue, Norma Hoit, A.B. Colby, 1918	<i>Fort Fairfield</i>
Gordon, Eugene Bradley, B.A. Bowdoin, 1914	<i>Bar Harbor</i>
Gorman, Helen Theresa	<i>Holyoke, Mass.</i>
Gould, Sherman Jewett, B.A. Bates, 1916	<i>New Portland</i>
Gowen, Mabel Hope	<i>South Brewer</i>
Gray, Edith Annie	<i>Stonington</i>
Gray, Jessie Fremont	<i>East Holden</i>
Gray, Philip Lewis	<i>Harborside</i>
Griffin, Stephen Augustus	<i>Peak Island</i>
Gustin, Richard William	<i>Bangor</i>
Gutterman, Lester Strauss	<i>Boston, Mass.</i>
Hagerthy, Cornelius Carlisle	<i>Sedgwick</i>
Hagerthy, Lawrence Milton	<i>Sedgwick</i>
Hale, Edward Rice	<i>Castine</i>

Haley, Francis Nelson	<i>Lynn, Mass.</i>
Hallett, Ronald Payne	<i>Gloucester, Mass.</i>
Hamm, Carol May, B.A.	<i>Bangor</i>
Maine, 1921	
Hardy, Oral Alton	<i>Stillwater</i>
Harris, Elijah Edgar	<i>LaGrange</i>
Hart, Clarence Eugene	<i>Orono</i>
Harthorn, Pauline Dudley	<i>Milford</i>
Harvey, Dorothy Erma, A.B.	<i>Bangor</i>
Wheaton, 1919	
Haskell, Rosamond	<i>West Roxbury, Mass.</i>
Hassell, Doris Lenfest	<i>Houlton</i>
Hatch, Regina Hazel	<i>Stillwater</i>
Hathorne, Helen Louise, B.A.	<i>Orono</i>
Maine, 1922	
Haubrich, Bernard Page	<i>Claremont, N. H.</i>
Hay, Lloyd Graham	<i>Portland</i>
Haynes, Louise May	<i>Bangor</i>
Higgins, Esther Laiten	<i>Old Town</i>
Hilton, Walter Getchell	<i>Norridgewock</i>
Hodges, Isaiah Matthew	<i>Brooklin</i>
Hofsted, Eugene Albert	<i>Rockville, Conn.</i>
Horne, Samuel Philip	<i>Bradford, Mass.</i>
Houghton, Amory McLellan	<i>Bath</i>
Huddilston, Rachel	<i>Orono</i>
Humphreys, Helen May	<i>Brownville Junction</i>
Huston, Edith Isabel	<i>Norway</i>
Hutchins, Paul Aiken	<i>North Stratford, N. H.</i>
Ingraham, Owen Bryan	<i>Augusta</i>
Jardine, Eldora Pearl	<i>Washburn</i>
Jeffery, David Mitchell	<i>Dorchester, Mass.</i>
Jellison, Arthur William	<i>West Sullivan</i>
Jen, Tsung Chi	<i>Kiang Su, China</i>
Johnson, Charles Roger	<i>Lynn, Mass.</i>
Jones, Cecil Roland	<i>Waterville</i>
Jones, E. Elizabeth, A.B.	<i>Pueblo, Colo.</i>
Radcliffe, 1920	
Jordan, Ina, B. Ped.	<i>Seal Harbor</i>
Maine, 1921	
Judkins, Perry Wendell	<i>Upton</i>
Keegan, Sister M. Eucharia, B.S.E.	<i>Orono</i>
St. Joseph's, 1921	
Kelleher, George Francis	<i>Ware, Mass.</i>
Kelley, Norman James	<i>Orono</i>



Kellogg, Thelma Louise, B.A. Maine, 1918	<i>Vanceboro</i>
Kelly, William Powers, Jr.	<i>New Brunswick, N. J.</i>
Kennedy, Mary Ursula	<i>Chicopee Falls, Mass.</i>
Keyte, William Albert	<i>Dexter</i>
Kilby, Esther Tower	<i>Dennysville</i>
Lane, Charles Valentine	<i>Red Beach</i>
LaPlant, John Ervin	<i>Gardiner</i>
Larkin, Sister Mary Teresita, B.S.E. St. Joseph's, 1919	<i>Orono</i>
Lawrie, Christabel Finley	<i>Orono</i>
Leighton, Philip Henry	<i>McIndoes, Vt.</i>
Lewis, Imogene	<i>Stillwater</i>
Libby, Paul Wescott	<i>Gray</i>
Logan, Albert Charles	<i>Houlton</i>
Loosen, Joseph, B.S. Univ. of Pa.	<i>Lockport, N. Y.</i>
Loring, Mary Elizabeth	<i>Bath</i>
Lovell, Harold Irving	<i>Lynn, Mass.</i>
Ludwig, Richard Bagley	<i>Houlton</i>
Lum, Joe Woon, A.B. Leland Stanford, 1917	<i>San Francisco, Cal.</i>
McCart, John Henderson	<i>Eastport</i>
McClelland, Charlotte, B.S. Columbia, 1910	<i>Carmel, N. Y.</i>
McClelland, John Joseph, B.A. Amherst, 1907; B.D., Yale, 1910	<i>Carmel, N. Y.</i>
McCobb, John Lombard	<i>Woodfords</i>
McConville, Sister Mary Callista, B.S.E. St. Joseph's, 1919	<i>Orono</i>
McInnes, Duncan	<i>Bath</i>
McKenney, Grace Agnes	<i>Ellsworth</i>
McKay, Ernest Angus	<i>Wytopitlock</i>
MacMillan, Eleanor	<i>Wilmington, Del.</i>
McNally, Wayne Whitten, B.S. Colby, 1921	<i>Clinton</i>
Mahaney, Edrie	<i>Bangor</i>
Malenaucka, Witalus George	<i>Auburn</i>
Maling, Rachel Dorcas	<i>Bangor</i>
Mann, Dorothy Baird	<i>Houlton</i>
March, Leland Samuel	<i>Old Town</i>
Marr, Carolyn Jean	<i>Fall River, Mass.</i>
Martin, Leo Forest	<i>Old Town</i>
Mason, Daniel Whitehouse	<i>Augusta</i>
May, Marie Etta	<i>Island Falls</i>

Meservie, Charles Erland	<i>Morrill</i>
Meservie, Elva Calesta	<i>Morrill</i>
Miller, Ira Lyman	<i>Brewer</i>
Miller, Esther Mabel	<i>Bangor</i>
Moody, Dwight Lyman	<i>Danforth</i>
Morse, Frank Leander Staples	<i>Rockland</i>
Moulton, Fred Hartshorn	<i>North Jay</i>
Mulvaney, Arthur Danforth, B.S. Maine, 1922	<i>Bangor</i>
Munro, Josephine Avory	<i>Houlton</i>
Murphy, Sister Mary Eulalia, B.S.E. St. Joseph's, 1919	<i>Bangor</i>
Murray, William Smith, B.A. Maine, 1921	<i>Hampden Highlands</i>
Nadeau, Eugene Joseph	<i>Presque Isle</i>
Nickerson, Osgood Alden	<i>Bangor</i>
Norton, John Leyden	<i>Manchester, N. H.</i>
Noyes, Gordon Max	<i>Norway</i>
Nutting, Percy Lyman	<i>Skowhegan</i>
Osabe, Eizo	<i>Kobe, Japan</i>
Page, Edwina Marguerite	<i>Winterport</i>
Parker, Elizabeth Carroll	<i>Sedgwick</i>
Patchell, Dale Malcolm	<i>Wyetopitlock</i>
Patton, Frederic John, Jr.	<i>Bath</i>
Pendleton, Emily	<i>Dark Harbor</i>
Pendleton, Elizabeth Estelle	<i>Bangor</i>
Perkins, Esther Naomi	<i>Portland</i>
Perkins, Mary Crowell	<i>Portland</i>
Perry, Gladys Simpson	<i>Waterville</i>
Petersen, Christian William, B.A. Maine, 1921	<i>Portland</i>
Peterson, Bernese Loretta, A.B. Kansas, 1909; A.M., 1914	<i>Orono</i>
Pierson, Ellen Victoria	<i>Garland</i>
Pollard, Joseph Greeley	<i>Omaha, Neb.</i>
Pooler, Leonard Lawrence	<i>Bangor</i>
Porter, Victor Arnold	<i>Presque Isle</i>
Powers, Clarissa Arvilla	<i>Bangor</i>
Preble, Maud Hammond	<i>South Brewer</i>
Prentiss, Milton Carpenter	<i>Greenville</i>
Pressey, Harold Elbert	<i>Bangor</i>
Proctor, John Winthrop	<i>Franklin, N. H.</i>
Pullen, Hester Mills	<i>North Anson</i>
Purves, Fergus Beattie	<i>Hartford, Conn.</i>

Rand, Eben Eaton	<i>Locke Mills</i>
Rea, Mary Beatrice	<i>Upper Montclair, N. J.</i>
Rediker, Hazle Phyllis	<i>Washburn</i>
Redman, Crosby Eaton, B.S.	<i>Corinna</i>
Bowdoin, 1921	
Richardson, Harrison Lambert	<i>Orono</i>
Reid, Gladys Adell	<i>Bangor</i>
Rideout, Doris Celia	<i>Bangor</i>
Rigney, Helen Hope	<i>Waterville, Conn.</i>
Roberts, Philip Carroll	<i>Woodfords</i>
Robinson, Inez Margaret, A.B.	<i>Island Falls</i>
Bates, 1918	
Roney, Annie Louise	<i>Bangor</i>
Ross, Irma Marian, A.B.	<i>Corinna</i>
Colby, 1919	
Ross, Louise Alta, A.B.	<i>Corinna</i>
Colby, 1911	
Sargent, Harold Dean	<i>Patten</i>
Savage, Vera May	<i>Bangor</i>
Scott, Arthur Burton	<i>Gardiner</i>
Scullion, Arthur Anthony	<i>Grantwood, N. J.</i>
Severance, George Austin	<i>Old Town</i>
Sherburne, Lauris Norton	<i>Newport</i>
Shorey, Helen Elizabeth	<i>Dover-Foxcroft</i>
Simpson, William Andrew, B.S.	<i>Marlboro, Mass.</i>
Maine, 1917	
Small, Elmer Owen, A.B.	<i>Newport</i>
Bates, 1915	
Smart, Edgar Solomon	<i>Winterport</i>
Smith, Cecil Mae	<i>Bangor</i>
Smith, Ernest Clement	<i>Manchester, N. H.</i>
Smith, Sarah Elizabeth, B.S.	<i>Houlton</i>
Colby, 1921	
Smith, Thirma Helen	<i>Corinna</i>
Spencer, Virginia Myrtle	<i>Old Town</i>
Sprague, Darrell Wallace	<i>Corinna</i>
Stairs, Annette Elizabeth	<i>Stillwater</i>
Stairs, Ina Eugina	<i>Stillwater</i>
Stanley, Hannah Alicia	<i>Monticello</i>
Stinchfield, Anna Kelley	<i>Orono</i>
Stuart, Jeannette Lelia	<i>Houlton</i>
Sturtevant, Alice Boynton, A.B.	<i>Newcastle</i>
Colby, 1916	
Sturtevant, Arthur Leroy, B.S.	<i>Milo</i>
Maine, 1912	
Sullivan, Daniel Laurence	<i>Reading, Mass.</i>

Swanton, Carl Bartlett  
 Tapley, Wasson Chick  
 Tarbell, John Weatherbee  
 Thayer, Margery  
 Thompson, Cecil Frank  
 Todd, Arthur Lee  
 Toichi, Hattory  
 Towne, Frances Lucile  
 Townsend, Doris Mosher, A.B.  
     Wheaton, 1920  
 Townsend, John Laurence  
 Tripp, Jennie Gladys  
 Tucker, Ruth Whitmore  
 Tupper, Alton Foster  
 Tuttle, Lula May  
 Tyler, Frances Collerd  
 Urann, Arthur Reed  
 Urann, Irving Clifton  
 Vanderbilt, George Vanderhoef  
 Violette, Augusta Genevieve, B.A.  
     Maine, 1921  
 Waldron, Grace Chase  
 Warman, Alice Mary  
 Warren, George Churchill  
 Wass, Clifton Ennis, B. Ped.  
     Maine, 1922  
 Waterhouse, Ruth Elva  
 Webber, Noah Eastman  
 Weeks, Victoria Olive, B.A.  
     Maine, 1919  
 Whitcomb, Morton Church  
 White, Enoch James  
 Whitfield, Raymond Holmes  
 Whiting, Alice Merriam  
 Whitney, Sprague Rufus, B.C.S.  
     Northeastern, 1920  
 Whittemore, Earle Bennett  
 Wilde, Herman Emil  
 Willett, Alfred Peter, B.A.  
     Maine, 1921  
 Wilson, Cuthbert Burns  
 Wilson, Henry Charles  
 Wilson, Kenneth Cony  
 Winslow, Arthur Franklin  
 Worthington, John Wyman

*Millbridge*  
*Tremont*  
*Bangor*  
*West Roxbury, Mass.*  
*Kingfield*  
*Richmond*  
*Yamaguchi Ken, Japan*  
*Milo*  
*Bangor*  
  
*South Portland*  
*Winterport*  
*Portland*  
*Arlington, Mass.*  
*Yarmouthville*  
*Portland*  
*Ellsworth*  
*Ellsworth*  
*Greenville, N. Y.*  
*Milford*  
  
*Dexter*  
*Auburn*  
*West Somerville, Mass.*  
*Newport*  
  
*Old Town*  
*Waterville*  
*Winthrop*  
  
*Ellsworth*  
*Dyer Brook*  
*New Haven, Conn.*  
*East Winthrop*  
*Framingham, Mass.*  
  
*Worcester, Mass.*  
*Lawrence, Mass.*  
*Orono*  
  
*Bath*  
*Portland*  
*Augusta*  
*Freeport*  
*East Hampton, Conn.*

## General Summary

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### FACULTY

President	1
Professors	35
Associate Professors	19
Assistant Professors	18
Instructors	46
Assistants	4
Agricultural Extension Service Staff	40
Agricultural Experiment Station Staff	18
<hr/>	
Total	181
College of Agriculture	20
College of Arts and Sciences	54
College of Technology	34
Agricultural Extension Service Staff	40
Agricultural Experiment Station Staff	18
Officers common to all colleges	15
<hr/>	
Total	181

### STUDENTS

	Total	Men	Women
Graduate Students	62	35	27
Seniors	224	165	59
Juniors	233	189	44
Sophomores	282	208	74
Freshmen	425	349	76
Specials	43	34	9
Two Year School Course in Agriculture			
First Year           9			
Second Year       10	19	19	0
<hr/>			
Summer Term	294	175	119
<hr/>			
Total, omitting duplicates in Summer Term	1474	1102	372

## CLASSIFICATION BY COLLEGES

Graduate students	62
College of Agriculture	286
College of Arts and Sciences	630
College of Technology	496
	<hr/>
	1474

## CANDIDATES FOR DEGREES

Graduate students	62
College of Agriculture	252
College of Arts and Sciences	462
College of Technology	484
	<hr/>
	1260

## CLASSIFICATION BY RESIDENCE

Maine, by counties :	
Androscoggin	28
Aroostook	96
Cumberland	154
Franklin	31
Hancock	64
Kennebec	79
Knox	30
Lincoln	20
Oxford	47
Penobscot	389
Piscataquis	55
Sagadahoc	22
Somerset	38
Waldo	31
Washington	82
York	68
Maine	1234
Massachusetts	137
Connecticut	28
New Hampshire	25
New York	18
New Jersey	8
Vermont	7
California	1
Colorado	1
District of Columbia	1

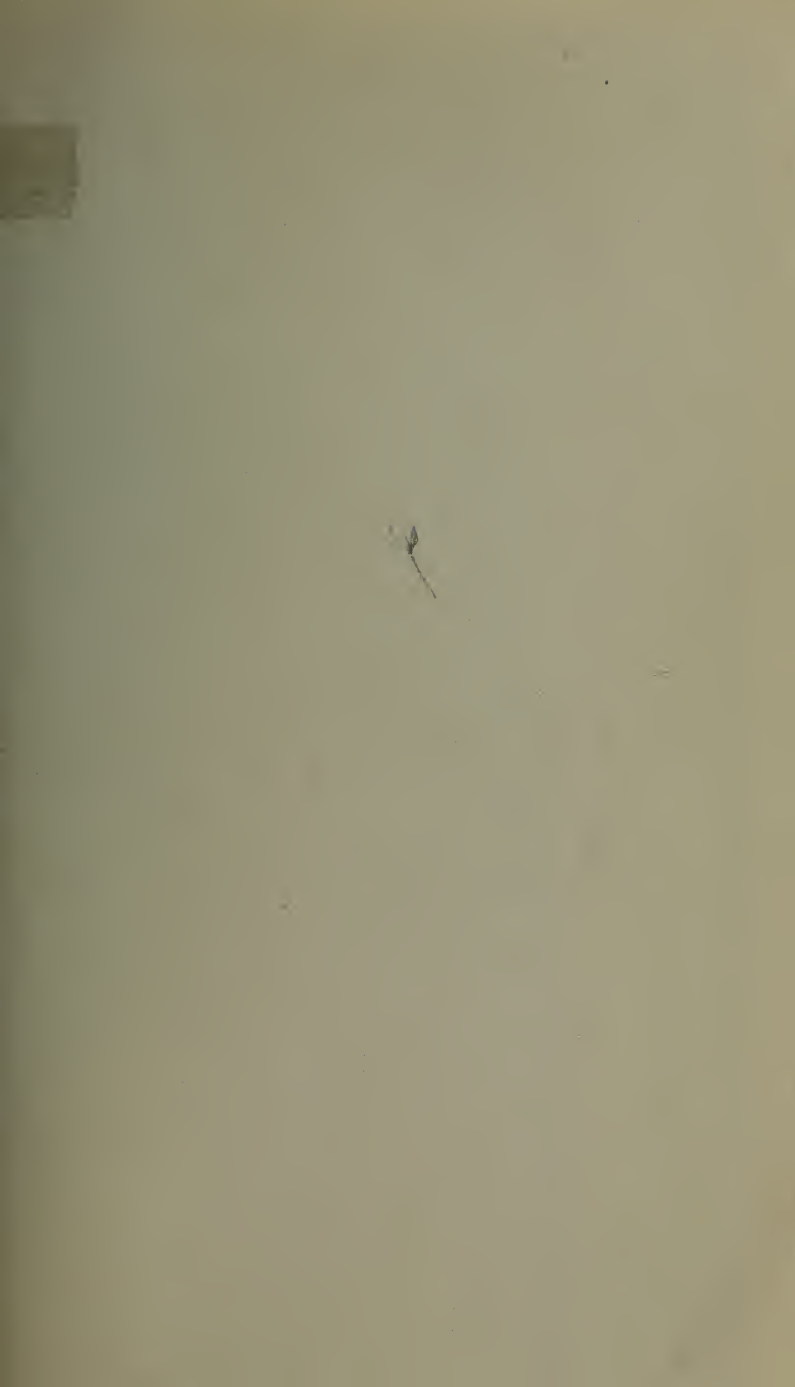


Michigan	1
Nebraska	1
North Carolina	1
Texas	1
Wisconsin	1
Canada	1
China	4
Japan	2
Newfoundland	1
Serbia	1
	<hr/>

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